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THE UNIVERSITY OF ALBERTA

TRENDS IN MEDICAL SERVICE MARKETS IN CANADA UNDER UNIVERSAL HEALTH INSURANCE

by

© MAYNARD C. MacASKILL

A THESIS

SUBMITTED TO THE FACULTY OF GRADUATE STUDIES AND RESEARCH IN

PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF

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The undersigned certify that they have read, and recommend to the Faculty of Graduate Studies and Research, for acceptance, a thesis entitled TRENDS IN MEDICAL SERVICE MARKETS IN CANADA UNDER UNIVERSAL HEALTH INSURANCE submitted by Maynard C. MacAskill in partial fulfillment of the requirements for the degree of Master of Health Services Administration.

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ABSTRACT

The recent implementation of a universal national hospital and medical insurance plan in Canada has resulted in conflicts and new concerns in a number of areas. A major concern of both provincial and federal governments has been the rapid escalation of costs under the open-ended shared-cost system of financing of the Canadian plan.

The main objective of this thesis is to examine the development in Canada of the fee-for-service system of physician remuneration, its influences on medical service markets, form and function of our health care delivery system and total health care costs.

The main conclusion of this thesis is that the fee-for-service system has some particularly undesirable features in the context of universal health insurance. These features relate to its influences on physician activity and hence on patterns of health care delivery. An analysis of recent trends in medical service markets in Canada indicates that if we are to achieve the objective of moderating the current rapid rate of medical care expenditures we must restrict the growth of the number of physicians, their average income or both.

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CHAPTER I

INTRODUCTION

Preamble

All Canadian provinces implemented comprehensive universal medical care insurance plans between July 1st, 1968 and January 1st, 1971.[1] The entry of New Brunswick on January 1st, 1971 completed the implementation of the national hospital and medical insurance program - the total population of Canada was covered by a comprehensive system of medical and hospital benefits. The entry of each province into the medical services program qualified the residents for the federal subsidies set out in the Federal Medical Care Act, 1966. The goal recommended in the "Health Charter for Canadians" embodied in the report of the Royal Commission on Health Services to the Canadian Government in 1965, "to make all the fruits of the health sciences available to all residents without hindrance of any kind -- to eliminate

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[1] See Table 1, p.44.

inequality in financial access to care while preserving the right to individual choice of physician"-- had been achieved for all practical purposes.[1]

Social and Political Factors Embodied in the National Plan

Canada's political, social and cultural traditions have had a strong influence on the approach taken in implementing a national health insurance program. Canada is a federal state with a mobile population which has been traditionally accustomed to integrated (providing treatment for rich and poor) hospitals and freedom of choice in selecting a physician. The non-commercial insurance programs which had existed in Canada prior to the introduction of universal government-sponsored insurance had made some progress towards elimination of financial barriers to medical care for a considerable part of the population.

Given this type of tradition, it follows that any national medical insurance scheme would have to incorporate accessibility to comprehensive care coupled with freedom of choice of hospital and physician. This meant that: (1) a portability feature had to be built into the plan to allow for the high degree of inter-regional mobility in the population and (2) that the traditional

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[1] Canada, Royal Commission on Health Services, Queen's Printer Ottawa, 1964, Volume 1, 11. p. 11-12.

fee-for-service method of paying physicians would have to be retained. The British type of capitation system was not considered to be an acceptable alternative.

Economic Issues and Concerns

The transfer of the financing of health services from the private to the public sector resulted in conflicts and new concerns in a number of areas. Taylor recently outlined the problems created by this transfer of responsibility:

> "....rising demand for services, rising costs, conflicts between provincial authorities and demands of local interests for expanded facilities, conflict between the federal and provincial governments and conflict with the providers of services over fees and rates of payment ....growing concern by all governments over rising costs, especially federal government apprehension over its apparent lack of direct control over open-ended shared-cost programs."[1]

The medical profession in Canada has been aware for some time that a crisis concerning the payment for medical services and spiraling medical care costs is approaching. Dr. H. D. Roberts, in his inaugral address as President of the Canadian Medical Association in June of 1971 outlined the problem as he saw it:

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[1]Malcolm G. Taylor, "The Canadian Health Insurance Program", Canadian Public Administration, January-February, 1973, p.31.

> "Medicare, now nationally instituted in Canada has led to problems of operation - but who will deny that it has not been a great benefit to our citizens. We entered it in our various provinces with fee schedules not designed for total payment or even 90%. As a result, medical incomes have increased considerably and with great diversity in our various disciplines. These disparities are caused by misuse and abuse of fee schedules, over-servicing and over-utilization and other factors".[1]

The rapid expansion in the field of health care in Canada in the past decade has required that the people involved in economic decision making devote their energies to facilitating this expansion. The period of expansion has now levelled off and it is an opportune time to investigate methods of applying expensive capital and human resources to the most efficient advantage to achieve our desired health care goals in Canada.

An investigation into new methods of financing health care is needed for two reasons. Firstly, because the health care sector of the economy is not exposed to ordinary market forces and competitive pressures which would naturally lead to efficiencies such as could be expected in "normal" markets. Secondly, we cannot in Canada sustain the current rate of escalation of health care costs. The Economic Council of Canada in 1970 reported:

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[1] H. D. Roberts, Inaugral Address, C.M.A. Annual General Meeting, Halifax, June 8, 1971. In Canadian Medical Association Journal 104, June 19, 1971, p.1142.

> "By 1975, total expenditures on personal health care may amount to about 6.5 per cent of projected gross national product, compared with 5.5 per cent in 1969 and approximately 3 per cent in the mid 1950's".[1]

Competing social priorities are now vying for a greater share of the G.N.P. devoted to health and thus the attention of legislators is now being directed towards the health care share. Given the fact that the physician is the most important person involved in the delivery of health care services, it is necessary to pay careful attention to the manner in which physicians presently allocate health care resources.

Purpose

The purpose of this thesis will be to examine the development of the predominant method of physician remuneration in Canada, - the fee-for-service system, - within the framework of the evolution of health insurance. Attention will then be focused on the influences of this system of payment on medical service markets in Canada, the form and functions of our health care delivery system and total health care costs. An attempt will be made to suggest methods whereby the system of remuneration could be used to slow the rapidly escalating total costs of medical services.

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[1] Economic Council of Canada, 7th Annual Review, Patterns of Growth, Ottawa, Queen's Printer, 1970, p.40.

Scope

There are, of course, many economic facets of the health care delivery system which merit consideration in attempting to gain an understanding of total health care costs. This thesis concentrates on one facet only, physician reimbursement under the fee-for-service system in the context of universal health care insurance in Canada. The emphasis will be on the fee-for-service system of payment as it affects the solo medical practitioner predominantly. Alternate forms of physician payment and medical practice organization will not be considered. Attention is directed towards physician reimbursement because, as noted above, the physician is the central figure in the allocation of health care resources. He influences all other major costs of the health care system, including the large percentage spent in hospitals.

The health care plans recently instituted in the Yukon and Northwest Territories will not be included in the comparisons of health care plans because of the relatively small numbers of beneficiaries and the late introduction of these plans.[1]

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[1] The Northwest Territories and Yukon programs were introduced on April 1, 1971 and April 1, 1972, respectively.

Format of Thesis

The thesis is divided into six chapters. Chapter I provides the background and purpose of the study, its scope and definitions of some of the more important terms and expressions which are used throughout. Chapter II outlines the development of health insurance in Canada to the present as well as the historical background and development of fee schedules and the fee-for-service method of physician remuneration. The rationale underlying the fee-for-service system as well as its advantages and disadvantages in the context of medicine is also dealt with in this chapter.

Chapter III deals with the structure and organization of health insurance in Canada. The main principles of the Federal Medical Care Act as well as the historical aspects of provincial participation is outlined. A section on financing will deal with historical and existing financing arrangements as well as new federal proposals in this area. The provincial medical care plans are examined from the points of view of organizational structure, methods of physician remuneration, benefit coverage and method of the financing of the provincial share of costs. Appendix I contains details of physician payment mechanisms under the health care plans of each province.

Chapter IV and V deal generally with medical service markets and recent trends in Canadian medical service markets, respectively. In Chapter IV

an attempt is made to explain differences between conventional and medical service markets as well as to explain the supply and demand characteristics of physicians' services. Chapter V deals with expenditures on physicians' services in Canada, incomes of physicians and trends in the supply and utilization of physicians' services in recent years. Chapter VI provides a summary as well as conclusions and recommendations arising from the study.

Definitions

Medicare - refers to universal comprehensive health insurance.

Fee-for-Service - refers to the method of payment whereby a specific payment is provided for each medical service or procedure.

Fee-for-Service System - refers to the system including the fee-for-service principle, fee schedules and related administrative procedures.

Schedule of Fees - refers to the set of prices or fees agreed to by a professional organization and published by them.

Schedule of Benefits - refers to the set of prices or fees which a provincial health insurance plan agrees to pay on behalf of its beneficiaries for services provided to them.

Service Benefit - refers to the situation where the physician bills the paying agency. This is also referred to as the direct method of fee-for-service remuneration.

Cash Benefit - refers to the situation where the patient pays the doctor and is reimbursed all or most of the fee expended by the third party. This is also known as the reimbursement method of fee-for-service remuneration.

Sliding Scale - refers to the situation under the fee-for-service system where the charges for individual services vary according to the patients ability to pay.

Medical Services - refers to therapeutic, preventive and rehabilitative services and care.

Medical Service Markets - refers to the framework within which medical services are offered and delivered to the public. They include all public and private methods of delivery of medical services.

Health Care Delivery System - refers to the collection of human, physical and institutional resources that interacf and interrelate in the provision of medical and hospital services.

CHAPTER II

THE DEVELOPMENT OF HEALTH INSURANCE AND THE FEE-FOR-SERVICE SYSTEM OF PHYSICIAN REMUNERATION IN CANADA

Beginnings of Health Insurance

The first known contract for medical insurance in North America was introduced in 1665 in what is now the City of Montreal, when a surgeon contracted to care for 23 families.[1] At about this time, in Newfoundland, doctors attached to the fishing fleet were paid a yearly retainer to care for the fishermen and their families, an arrangement which continued until 1867.[2] The earliest group health insurance plans (check-off systems) were in existence in the Nova Scotia collieries as early as 1883 with payroll deductions paid to the hospital and doctor of choice on a capitation basis.[3] Similar plans developed for employees and their dependents in the mines of Ontario and British Columbia during the next few decades.[4]

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[1] Canada, Royal Commission on Health Services, Queen's Printer, Ottawa, 1964, Volume I, p.382.

[2] "Doctors Strike", op. cit., p.8.

[3] Royal Commission on Health Services, op. cit., p.383.

[4] Ibid., p.384.

Voluntary Health Insurance

The device of voluntary prepayment for medical insurance came into use on the prairies in the late 1800's, when hospitals in Alberta developed as a source of revenue a system of prepayment tickets in return for the purchase of which the hospital agreed to "lodge, board and give nursing and medical attendance."[1] A number of such hospital-sponsored plans grew up throughout Canada during the following decades and in 1934, the Canadian Medical Association reported the existence of twenty-seven small, local hospital-sponsored voluntary payment plans operating in six provinces.[2] These voluntary plans became the nucleus of the Blue Cross movement which gained momentum during the war years in Manitoba, Alberta, Quebec, the Maritimes and British Columbia.[3]

Public Health Insurance

Public health insurance first appeared in the western provinces.

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[1] Royal Commission on Health Services, op. cit., p.382.

[2] Ibid., p.383.

[3] Ibid., pp.386-387.

The sparse settlement and absence of large fortunes which ruled out philanthropy[1] were two factors peculiar to the prairies at the turn of the century which resulted in people turning to government agencies to solve their medical problems.

As early as 1914, public insurance plans were in operation in rural Saskatchewan. These were known as "Municipal Doctor Plans",[2] under which a municipality would contract with a physician (general practitioner) for his services on a yearly basis. Similar plans grew up in Alberta and Manitoba, although not on the Saskatchewan scale.[3] The Municipal Doctor Plans were superseded by the doctor sponsored service plans (see below) and were ultimately replaced by the Saskatchewan Medical Care Program in July, 1962.[4]

Private Health Insurance

In the 1930's and 40's prepayment plans for physician services,

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[1] Royal Commission on Health Services, Volume 1, p.383.

[2] Ibid., pp.392-395.

[3] Ibid., p.386.

[4] Ibid., p.386.

(mainly voluntary as regards enrolment) began to develop in the private sector.[1] These voluntary plans were of commercial (indemnity)[2] and service[3] types with indemnity plans preceding the development of service plans as a method of providing benefits for the insured. The commercial sickness and accident insurance plans were operated by the life and casualty insurance companies and offered a variety of indemnity plans.[4]

The service plans were of two types, physician and consumer sponsored. Many of these service plans had come into existence across Canada in the 1930's and 40's and were the most popular type of pre-medicare health

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[1] Charles H. Berry, Voluntary Medical Insurance and Prepayment, Queen's Printer, Ottawa, 1964, p.4.

[2] Under an indemnity contract, the amount of reimbursement is usually limited to some maximum amount for specified contingencies, or some portion of the medical expenses incurred during illness or accident. These arbitrary fiscal benefits often had little relationship to the fee charged the patient by the physician.

[3] Service contracts are primarily concerned with the provision of medical care rather than risk aversion and attempt to provide complete coverage for medical costs sustained during illness. They provide this service on a non-profit basis to their subscribers.

[4] Berry, Ibid., p.5.

insurance.[1,2] Most of the service plans were physician sponsored[3] and supported physician "participation". This involved a requirement on the part of the physician who operated within the plan to accept the plan payment for any service as payment in full. The physician who chose to operate outside the plan took the risk of not collecting their fees since the plans reimbursed the patient directly. These service plans had been started in most provinces by the late 1940's.[4]

Federal Involvement

Federal involvement in health insurance in Canada began as early as 1945, when the federal government offered the provinces a plan of

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[1]Royal Commission on Health Services, op. cit., pp. 391-392.

[2]Malcolm G. Taylor, "The Canadian Health Insurance Program", op. cit., p.30. Taylor states, "Voluntary medical service prepayment plans were started in Windsor and Toronto in 1937 and in British Columbia 3 years later. Following the war, seven other medical sponsored plans were established in other provinces. These were comprehensive plans covering home, office and in-hospital services."

[3]R. A. Armstrong, "Some Observations on Methods of Physician Remuneration in Canada, Unpublished Paper prepared for the Community Health Centre Project (Hastings Committee), 1972, p.3.

[4]Charles H. Berry, op. cit., p.31.

cost-sharing 60 per cent of provincial hospital and medical programs.[1] This proposal was not accepted by the provinces because of disagreements concerning fields of taxation to be "rented" to the federal government which was to have formed the basis of financing for the new system.[2] Over the following two decades federal involvement in health financing in Canada increased gradually with the introduction of the National Health Grants Program in 1948 and the Hospital Insurance and Diagnostic Services Act of 1957, both concepts having been embodied in the 1945 federal proposal.[3]

Provincial Involvement

Beginning in 1933 with Ontario, provincial programs were introduced which provided medical care for the indigent,[4] on a system of subsidies

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[1] Dominion-Provincial Conference on Post-War Reconstruction, 1945-46, Proceedings, Queen's Printer, Ottawa, 1946, p.16.

[2] Royal Commission on Health Services, op. cit., pp.403-404.

[3] Ibid.

[4] Malcolm G. Taylor, "Social Assistance Medical Care Programmes in Canada", American Journal of Public Health, Volume 44 (1954), p.751. The other provinces were: Nova Scotia, Saskatchewan, Alberta and British Columbia. Ontario and Nova Scotia provided limited benefits (office and home visits only) but the three western provinces involved offered a comprehensive range of benefits.

for persons in this category who subscribed to a commercial or profession sponsored plan.[1] The existence of these subsidization plans as well as the expansion of the profession-sponsored service plans had influenced organized medicine in Canada to take a stand in opposition to National Health Insurance. The CMA adopted a "supplement, don't supplant" approach.[2]

In spite of the opposition of the provincial medical profession, the Saskatchewan Government introduced its Medical Service Act on July 1, 1962, the date on which the Saskatchewan Medical Association went on strike for 23 days.[3] The subsequent settlement[4] agreed to by the doctors and government launched the first medicare plan in North America. It was followed by the Alberta Medical Care Plan in 1963, which made comprehensive benefits available to needy persons by subsidization, or outright payment on

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[1] Malcolm G. Taylor, "Social Assistance Medical Care Programmes in Canada", American Journal of Public Health, Volume 44 (1954), p.751.

[2] Ibid.

[3] Doctor's Strike, op. cit., p.61.

[4] Ibid., pp.96-98. The doctors conceded the right of universal involvement as well as the right to determine benefit levels. Doctors were conceded the right by government to operate outside the plan and bill patients rather than the medical plan directly.

their behalf of the premiums for the physician-sponsored plan[1] then available in the province.[2]

Universal Medical Care Insurance

The report of the Royal Commission on Health Services in June, 1964 with its recommendation of 10 provincial programs subsidized by federal funds,[3] set the final stage for the development of universal comprehensive medical coverage for the Canadian people. In 1965, despite voiciferous opposition from the medical profession and the insurance industry, the federal government offered grants of 50% of the national per capita cost of provincial

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[1] Medical Services Incorporated.

[2] Royal Commission on Health Services, Vol. 1, op. cit., p.26.

[3] Royal Commission on Health Services, Volume I, pp.28-34. The Commissioners felt that the 10 provincial programs to be set up should be based on the physician sponsored medical care pre-payment plans then in operation - "we believe that the provision of medical services in Canada established by more medical care prepayment plans operating on a "service contract" basis have demonstrated their effectiveness and the possibility of low-cost administration." They acknowledged the shortcomings of these existing plans, however and the necessity to eliminate them. - "However deficiencies have become apparent in this type of contract in that many millions are excluded because of age, pre-existing physical or mental conditions or ability to pay the premiums. ---What we seek is a method to provide everybody in Canada with comprehensive coverage regardless of age or state of health or ability to pay."

medical plans[1] that met certain criteria.[2]

When the Federal Medical Care Act came into force on July 1, 1968, only Saskatchewan and British Columbia had plans in operation which qualified for the federal subsidy.[3] Since that time all the other provinces and territories have entered, to complete a nation-wide program of public medical and hospital services.

The universal method of paying physicians had been firmly established under the earlier voluntary pre-payment plans.[4] The basis for these payments were the authorized fee schedules established by the provincial medical associations for use in the operation of their own sponsored pre-payment plans. This method of remunerating physicians had developed coincidentally with health insurance in Canada and exerted a strong influence on the type of universal plan eventually instituted, and vice versa. As R. A.

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[1]Federal-Provincial Conference, 1965, Proceedings, Ottawa, Queen's Printer.

[2]See Chapter III, The Federal Medical Care Act for these criteria.

[3]Malcolm G. Taylor, "The Canadian Health Insurance Programme", op. cit., p.34.

[4]Malcolm G. Taylor, The Administration of Health Insurance in Canada, Oxford University Press, Toronto, 1956, p.147.

Armstrong, Director General, Health Insurance, Health and Welfare Canada has stated:

> "The fact that the predominant system of remunerating doctors in Canada was fee-for-service, influenced greatly the "Canadian goals" for health insurance, but it must be noted that the Canadian goals also had a profound influence on the fee-for-service system as it operated in most provinces. Thus fee-for-service in Canadian medical practice came to differ greatly from countries such as the United States, Australia and also greatly from the fee-for-service as practiced by such other Canadian professionals as dentists and lawyers."[1]

Because of the influence of the fee-for-service system on the development of health insurance in Canada and because of the implications of the system for patterns of practice and health care costs, it is useful to examine the system in some detail. The remainder of this chapter will examine the development of the fee-for-service system and fee schedules in the Canadian setting and their influences on the development of health insurance in Canada.

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[1] R. A. Armstrong, "Some Observations on Methods of Physician Remuneration in Canada". Unpublished paper prepared for the Community Health Centre Project, (Hastings Committee), 1972, p.3.

Historical Background of the Fee-For-Service Method of Physician Remuneration

Payment of physicians according to the fee-for-service method dates back, at the earliest, to the beginning of private medicine, that is, to the 6th Century, B.C.[1] According to Sand, these fees applied only to rich patients and were set sufficiently high to compensate the physicians for the free care which they provided for the poor.[2] In 301 Diocletian drew up a scale of fees payable to doctors, as did Rotharis, King of the Lombards, in 643; both systems were based on the principle that the rich should pay for care of the poor.[3] In 1241, Frederick II fixed the scale of fees for the kingdoms of Naples and Sicily and stipulated that the poor be treated free.[4]

The tradition of subsidization of the medical care of the poor through a system of high fees for the rich was followed by cities and rulers all over Europe up to the end of the seventeenth century.[5] At about this time in

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[1] Rene Sand, The Advance to Social Medicine, London, Staples Press, 1952, p.45.

[2] Ibid., p.43.

[3] Henry E. Sigerist, On the History of Medicine, ed. Felix Martin Ibanez, (New York, 1959), p.5.

[4] James J. Walsh, "Physicians Fees Down the Ages", International Clinics, Volume 4, Series 20, 1910, pp.266-67.

[5] R. Sand, op. cit., p.45.

England, the fellowship of physicians and surgeons began to promote a system of graduated fees which were related to the income of the patient,[1] introducing the sliding scale concept[2] of payments for physicians' services.

In North America, fee schedules for physicians' services were legislated in Virginia in 1636 and Maryland in 1638.[3] After the American Revolution, an oversupply of medical practitioners (qualified and unqualified) forced down the levels of physicians' incomes to the point where the profession was forced to take steps to standardize their charges with the result that set charges and fee schedules became common.[4] Thus, the fee-for-service system became established as the primary method of remuneration which has persisted in the United States until the present time. According to Shryoch, the standardization of fees has had considerable organizational influence on the medical profession in America in that medical societies were formed partly to reach agreements to set fees within an area and so dampen competition.[5]

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[1] W.S.C. Copeman, Doctors and Disease in Tudor Times, MacMillan and Company, London, 1960, p.49.

[2] Sliding scale refers to the gauging of the physician's charge to fit the financial circumstance of the patient.

[3] R. Sand, op. cit., p.45.

[4] Henry B. Shafer, The American Medical Profession, 1783-1750; Lipincott, New York, 1936, pp.166-67.

[5] Richard H. Shryock, Medicine in America: Historical Essays, Johns Hopkins Press, Baltimore, 1966, p.158.

The first fee schedule for medical practice appeared in Canada in 1858.[1] The fee-for-service system had become firmly established in Ontario and Quebec by the end of the Nineteenth Century.[2] Fee schedules had developed haphazardly at the local level, however, and because of the limited number of procedures performed at the time, the schedules contained only a few items.[3] These schedules tended to be used only as a guide and served the purpose of presenting a uniform set of fees to the public when the need arose, such as the determination of fees associated with litigation.[4] Physicians tended to relate their fees to the standard of living in the community in which they lived and the financial circumstances of the individual patient or family.[5]

Two parallel developments have had a profound influence on the development of fee schedules and the fee-for-service system in Canada in recent years. The first was the tremendous expansion of medical science and

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[1] William Perkins Bull, From Medicine Man to Medical Man, McLeod, Toronto, 1934, p.83. The schedule was drafted by The Medical Board of Upper Canada. The schedule contained only 5 specific fees, the remainder were "to be determined" at the discretion of the physician.

[2] Ibid., pp.285-89.

[3] Ibid., p.299.

[4] Task Force Reports on the Cost of Health Services in Canada, Volume III, Queen's Printer, Ottawa, 1970, p.257.

[5] Ibid.

technology since the turn of the century. The accompanying improvements in surgical technique resulted in a large number of differentiated procedures requiring varying amounts of work and degrees of expertise to perform.[1] The second and probably most important development, was the desire of a segment of the population to prepay the costs of medical care.[2] With the advent of early voluntary insurance schemes, it became necessary to develop clear definitions of particular services and to attach a specific fee to each.

Until the beginning of the voluntary insurance schemes, fee schedules had developed on a haphazard basis. They merely represented the average fee charged by the majority of doctors in a particular area and usually consisted of only a few items and were really guides as to the kinds of charges to make to private patients.[3] The schedules drawn up to meet the needs of the voluntary schemes were based on these early schedules, inadequate though they were. It was these later schedules which became

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[1] William A. Glaser, Paying the Doctor, The Johns Hopkins Press, Baltimore, 1970, p.102.

[2] Task Force Reports, Volume 3, op. cit., p.239.

[3] E.A.D. Boyd, "DiFAM, A New Method of Medical Care Insurance Payment", Medical Care, (Sept. - Oct., 1971), p.331.

the "official" fee schedules of provincial medical associations[1] and they are still in the process of development under Medicare. The schedules which developed were weighted to reflect losses from uncollectible accounts and they were generally biased in favor of surgical procedures which had been much more difficult to perform under the state of medical technology which had existed when the earlier fee schedules were drawn up.[2]

The new schedules were lists of standard fees[3] rather than a guide to use in charging private patients. They also introduced maximum[4] fees and differential schedules for specialists for the first time. The size and complexity of the fee schedules increased enormously as they tried to cover every concievable medical and surgical situation. Dozens of contingency modifications which change the fee according to various situations surrounding the patient's care were also introduced.[5]

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[1] E.A.D. Boyd, Ibid., p.331.

[2] R.A. Armstrong, D. Stewart, "Some Canadian Methods for Using Statistics for Health Planning Purposes", Unpublished Paper prepared for the PAHO Conference on Health Manpower Development, Ottawa, Sept., 1973, p.4.

[3] Boyd, op. cit., p.332.

[4] Earlier fee schedules had contained minimum fees, the publication of which was to prevent undercutting. (See Bull, From Medical Man to Medicine Man).

[5] Boyd, Ibid., p.335. Examples of such contingency modifications include the general rules that consultation followed by surgery is not paid and that con-comitant operations are paid for at a reduced rate.

It is interesting to note that the fee-for-service system in the United States has not developed similar fee schedules as in Canada.[1] The practice of price discrimination by U.S. physicians, i.e. scaling fees to the incomes of patients or charging what the traffic will bear, has been described as the behaviour of a price discriminating monopolist by Kessel.[2] Organized medicine in the United States (American Medical Association), takes the contrary position that price discrimination is practiced because doctors are, in effect, acting as a medical charity in some instances.[3] The absence of the influence of service plan type voluntary health insurance on the development of fee schedules, as well as the effects of anti-trust laws in the United States are factors which help explain the differences between the two countries.

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[1] Theodore R. Marmon, "Why Medicare Helped Raise Doctors' Fees", TransAction, U.S., #9, (Sept. '69), p.14. "Physicians are able to charge any fee which satisfy the criteria of reasonable and customary in the area where he practices---A sliding scale of fees applies; that is, the physician charges what he feels the traffic will bear.

[2] Reuben H. Kessel, "Price Discrimination in Medicine", Journal of Law and Economics, XV, 1958, p.252.

[3] Ibid., p.253.

The voluntary insurance schemes, and in particular the service plans, had exerted a marked influence on the development of fee schedules in Canada. These service plans exerted a controlling influence on the fee schedules which the provincial medical associations developed as a basis for plan payments because increases had to be written in such a way as to not unduly increase the overall dollar value of plan payments.[1] If overall plan payments increased, the poorer subscribers would be most adversely affected and the service plan concept would suffer as a result. This need to control total dollar payments exerted a controlling influence on the various segments of the medical profession who had to satisfy their professional colleagues that fee increases they might propose were justified.

In the years immediately prior to and since the introduction of Medicare, provincial fee schedules have been subject to major upward revisions.[2] It is understandable that these revisions would take place since the controlling influences we have referred to no longer existed. Also, explosion of medical technology in recent years brought many new procedures

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[1] R. A. Armstrong, "Some Observations on Methods of Physician Remuneration", op. cit., p.e.

[2] Canada, Health and Welfare, "Health Care Price Movements", Research and Statistics Memo, Ottawa, 1968, p.2. "In 1967, a sharp increase occurred in physicians' fees. This was 10.9% and compared to an average annual rate of increase of 3.2% over the previous 10 year period.

into existence. New items in the schedules were ascribed values largely by making subjective comparisons with existing procedures.[1] Increasingly, in the process of incorporating this new technology, fee schedule revisions have been based alternately on the inclusion or exclusion of certain procedures in relation to a basic fee,[2] with the real rationale of increasing the total applicable fee. These revisions have been basically minor price changes in certain items or a reshuffling of the percentages of total dollar payments to individual specialties.[3] These revisions have not resulted in the removal of the allowances for bad debts which had been built into the earlier schedules.[4] Also, since the introduction of Medicare, the relative earnings between provinces has become an important factor in upward fee revisions. This has resulted in a "leap-frogging" effect between provinces in Canada as far as medical costs are concerned.[5]

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[1] Task Force Reports, Volume III, p.240.

[2] Ibid, p.259.

[3] Ibid, p.239.

[4] J.G. Clarkson, Personal Communication, August, 1973.

[5] Ibid.

At the present time there is considerable variation in the fee schedules which obtain under the Medical Care plans in the ten provinces.[1] R. A. Armstrong, Director General, Health Insurance, has stated "the best that can be said for currently existing fee schedules is that they are a well-intentioned mess".[2] The task force dictum that each type of practising physician is worth approximately the same to society so that each type of physician (general practitioner, specialist) should earn the same over their working lives,[3] has not met with enthusiastic reception by the provincial medical associations.[4] This is understandable, since one would not expect the higher paid specialties to support any plan that would result in a lowering of their incomes.

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[1] Task Force Reports, Volume III, p.248. "At the present time, the structure and terminology of provincial fee schedules vary a great deal. Only the fee schedules of the Ontario and Newfoundland Medical Associations are identical in both concept and fees.

[2] R. A. Armstrong, "Some Observations On Methods of Physician Remuneration", op. cit., p.22.

[3] Task Force Reports, Volume III, op. cit., p.172 (Recommendation 9).

[4] R. A. Armstrong, "Some Observations on Methods of Physician Remuneration", p.23. Armstrong writes: "Many provincial associations have done little more than add on what they could to the fees of the low earners while freezing the fees of the others."

Rationale Underlying the Fee-For-Service System

The objective of the fee-for-service method of physician remuneration is to relate, through the instrument of the tariff or fee schedule, payment to the actual work performed for patients.[1] For the system to achieve this goal, two assumptions need to be made. Firstly, that fee schedules are rational, balanced and objective and secondly, that the fees (for the treatment of conditions of those patients who present themselves) are related to the time, skill, training and experience required for a given procedure and thus, will provide the physician with an income in keeping with his professional qualifications and experience. While the principle, in theory, suggests that the fee schedule will provide a fair return for a fair amount of work, for all medical practitioners, this objective is rarely achieved. In this connection, Taylor makes the following comment:

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[1] While this is the generally accepted objective of the fee-for-service system, one writer, having done an extensive review of fee systems through the ages offered a different view. To quote, "Just one thing this review of fees for some five thousand years makes clear; it is that at all times physicians have received compensation not according to the time or effort required but to the value conferred on the patients." See Walsh, op. cit. p.275.

> "All fee schedules are a mixture of tradition, negotiations and specialty group pressures, heavily weighted in favor of surgery and radiology and against the internest, dermatologist and general practitioner who does no major surgery."[1]

It is extremely difficult to measure the amount of training, skill, or experience which is required in the performance of a particular medical procedure and as is pointed out in Volume 3 of the Task Force Reports on the Cost of Health Services in Canada, these are attributes of the individual physician, not of the service he happens to be rendering.[2] The time involved in performing a procedure or treatment (considerations of quality aside) is probably easily measured and a reasonable average could then be related to an hourly wage. However, examination of current fee schedules suggests that the time involved in carrying out a particular activity is not necessarily reflected in the fees that are stated in the schedule. For example, the fee differential between house and office visit in current

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[1] M. G. Taylor, The Administration of Health Insurance in Canada, op. cit., p.147.

[2] Task Force Reports, Volume III, p.241.

schedules does not compensate for the time differential.[1] It would therefore be to the advantage of the income maximizing physician to substitute office visits for house visits where possible, given existing temporal constraints, other things being equal.

In the Canadian setting the fee-for-service method of payment is the one most favoured by the medical profession. In 1972, almost 96% of total expenditures for medical treatments were made on a fee-for-service basis.[2] However, while the fee system began as a means of ensuring fair pay for a fair amount of work, recent developments in medical insurance in Canada suggest that unforseen problems have arisen. These difficulties arise from the fact that changes in individual fee-for-service items exert an influence on patterns and sites of practice which has undesirable implications for total health care costs in general. These influences will be discussed at some length in Chapter IV. In recent years the fee schedule seems to have

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[1] The current Alberta Medical Association fee schedule lists an office visit at from $3.00 to $14.00 while a house visit lists at from $4.00 to $15.00. A.M.A. Schedule of Fees, November, 1972, p.7.

[2] Malcolm G. Taylor, "The Canadian Health Insurance Program", op. cit., p.36.

acquired the function of a device to maintain physicians' incomes in the face of rapidly increasing physician manpower. The maintenance of existing income levels is achieved by negotiating overall percentage increases in fee schedules on a periodic basis.

There are desirable and undesirable features associated with all methods of physician remuneration,[1] but the fee-for-service system has some especially undesirable implications for resource allocation[2] in the context of Medicare. The next section of this chapter will deal with the advantages and disadvantages of the system as perceived by health administrators, as well as its influences on the health care delivery system, while attendant cost implications will be dealt with in Chapter IV.

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[1]For a comprehensive outline of alternative methods of physician remuneration see Glaser, William N., Paying the Doctor, pp.4-20.

[2]According to Armstrong, the weighting which dates from the earliest schedules developed in response to the service plans tends to reflect what the public was willing to buy at that time. Since universal hospital insurance was in existence ten years before Medicare, the schedules have had an effect.

Advantages and Disadvantages of the Fee-For-Service System

There are a number of distinct advantages in the fee-for-service system of physician remuneration as perceived by health administrators. These are:

1. In the context of Medicare, it provides an opportunity to collect utilization data since every individual treatment and procedure must be recorded. This is a unique advantage in this period in our history since the information it can supply can be invaluable for evaluation and planning for alterations to the system;

2. It has sufficient adaptability to provide a continuity of benefits to a mobile population. (In effect, it is possible for individual physicians to bill other provincial plans directly for services rendered out-of-province residents.) This is extremely important in Canada which has a highly mobile population.[1]

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[1] Armstrong, "Some Observations on Methods of Physician Remuneration in Canada", op. cit., p.15

3. It is able to cope with substantial changes in the doctor population ratio better than any other system.[1]

4. It provides an opportunity to influence patterns of practice and care and to allow incentives to be built into the system so as to discourage disfavoured procedures. Alternately, the fee-for-service system can be readily adapted to changing patterns of medicine by altering the structure of the basic tariff.[2] (This subject will be dealt with at greater length in Chapter VI.)

5. Costs associated with overheads are built into the fee schedule. This has the potential of reducing administrative costs, compared to a system of payment such as salary.

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[1] Ibid., Armstrong writes, "Canada has been able to absorb increasing immigration as well as increasing output from her own medical schools and provide them with earnings sufficient to retain the bulk of them in this country due to the combination of fee-for-service and universal coverage."

[2] James Hogarth, The Payment of the Physician, MacMillan and Co., New York, 1963, p.523.

6. It is a "traditional" method of physician payment in Canada and the profession is apparently satisfied with it. The latter fact is worthy of consideration for practical reasons alone, since governments seem to like to keep doctors "happy".[1]

7. Lastly, a double edged sword. It relates the individual doctor's rewards to the actual amount of work he does and this does justice to the varying capability of different doctors.

Disadvantages

The disadvantages of the fee-for-service system are related to its influences on patterns of practice, administrative problems and to the instrument by means of which payment is related to the amount of work performed, the fee schedule. These disadvantages apply particularly in

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[1] Glaser, in Paying the Doctor writes: "Governments usually avoid trouble from the doctors by condoning familiar practices.....Since disputes between doctors and governments are usually surrounded by an unusual amount of publicity there is a tendency for government to bow to most of the demands of doctors.", p.99.

the context of Medicare. These disadvantages are:

1. Since earnings are related to the volume of services performed, the system tends to encourage activity. It, therefore, encourages intervention as opposed to conservatism in cases where indications for intervention are not clear-cut. This leads to an incentive for over-utilization of health facilities through influences on patterns of practice. Comparison between surgical rates under a fee-for-service system compared to a salary system of payment tends to bear this out, when correction is made for the relative supplies of surgeons and availability of acute care beds.[1]

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[1] J. P. Bunker, "Surgical Priorities and the Quality of Medical Care", Bulletin, New York Academy of Medicine 18 (January 15, 1972), pp. 173-77. In this study, rates of surgery in the U.S. and U.K. are compared. Similar studies in Canada comparing rates in Canada, the U.S. and U.K. carried out by the Health Insurance Directorate tend to agree with his conclusions but the influences of the supply of short-term hospital beds have also been found to directly influence surgical rates to these findings must be interpreted with caution. See Armstrong, "Some Observations on Methods of Physician Remuneration", op. cit., p.5.

2. The influence of the fee schedule on patterns of practice. Changes in the relative prices of individual items leads to unpredictable changes in patterns of practice and cost changes.[1]

3. It is impossible to determine the correct fee payable for every medical situation with the result that schedules became more unwieldly each year with the result that they "become bones of contention between doctors and carriers."[2]

4. The relative prices in fee schedules discourage certain procedures and types of care because of time factors involved in performing them, while encouraging others. The imbalance between the fees applicable to certain specialties has been cited as a discouraging factor to recruitment in some specialties.[3]

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[1]Maritime Medical Care Incorporated, a physician-sponsored plan in Nova Scotia reported marked changes in utilization of fee schedule items (patterns of practice) which occurred following changes in allotted fees between 1963 and 1967. Almost without exception, utilization increases followed fee increases and vice-versa. The most striking changes occurred in the case of Sunday calls; a 65% fee increase resulted in a utilization increase of 121%. Task Force Report, op. cit., p.259.

[2]Task Force Reports, op. cit., p.232.

[3]Hogarth, op. cit., p.534.

5. The economics of individual office practice motivates a high volume of procedures; as practice expands, expenses level off and the unit overhead cost of each service declines, making each procedure increasingly profitable. Thus, there is an economic pressure to over-service where fee schedules are not adjustable for the volume of service rendered.

6. Each item claimed for billing purposes must be coded by hand. Since even the most complex schedule cannot cover every eventuality, claims must often be considered individually. Huge staffs are required to do this, resulting in major administrative costs.[1]

7. The system offers wide scope for abuse. Since the patient does not have financial responsibility he may not protest repetitive visits and unnecessary

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[1]Milton I. Roemer, "On Paying the Doctor and the Implications of Different Methods", Journal of Health and Human Behaviour, 3, No. 1, Spring, 1962: p. 10. Roemer writes: "The fee-for-service system is cumbersome administratively and overhead is much higher than other payment systems. The overhead of administering Blue Shield plans averages about 8% which is much higher than the expense of administering salaried programs like that of the veterans administration."

care. A doctor who considers a particular fee inadequate can add additional procedures to make good the deficiency. There is the potential for billing for procedures and treatments not performed since the patient takes little interest in his account. For the sake of loyalty to his doctor, or at least for the sake of good relations with him, the patient is often reluctant to co-operate with the paying organization in audit investigations.[1]

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[1] Hogarth, op. cit., p.536.

CHAPTER III

THE STRUCTURE AND ORGANIZATION OF HEALTH INSURANCE IN CANADA

The Federal Medical Care Act: Main Principles

The Federal Medical Care Act, 1966, primarily provides a mechanism which authorizes the federal government to financially assist those provinces operating medical care insurance plans which meet the following criteria:

1) the plan is administered and operated on a non-profit basis by a public authority appointed and designated by the government of the province and subject to provincial audit;

2) the plan provides for and is administered and operated so as to provide for the furnishing of medically required services, rendered by a physician or surgeon, upon uniform terms and conditions, to all residents of the province;[1]

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[1] As is the case with the Hospital Insurance and Diagnostic Services Act, the Medical Care Act is "open-ended". That is, there is no upper limit on the insured services which an insured resident may receive, provided that the criteria of medical necessity ("medically required services") is met. In most cases, the non cost-shared extra benefits provided under the provincial plans are "closed-ended" - there is an upper limit on the volume or dollar value of services which an insured resident may receive in any given time period.

3) the number of insured residents of the province entitled to insured services under the plan is not less than 90% of the insurable residents (to become 95% on the third and subsequent years of plan operation); and

4) the plan does not impose any minimum period of residence in the province or any waiting period in excess of three months before persons who are, or who become residents of the province are entitled to insured services. It provides for payment for insured services furnished to insured persons who are temporarily absent from the province or have become residents of another province during any minimum period of residence or waiting period imposed by the Medical Care Insurance Plan of that province on the same basis as if the resident had not been absent from or not ceased to be a resident of that province.[1]

Provincial Participation

The Medical Care Act was implemented on July 1st, 1968 and by

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[1] Canada, The Medical Care Act, 1966-67, pp.14-15, Elizabeth II, S.1, Subsection 4(1), Queen's Printer, Ottawa, 1967.

January, 1971, all the provinces had introduced plans.[1] As of March 31st, 1972, approximately 21 million Canadians were covered by comprehensive medical insurance, representing some 99% of the eligible population in all provinces.[2] All persons resident in any province who are entitled to receive insured medical services under any other Act of the Parliament of Canada[3] or any law of a province relating to Workmen's Compensation are not entitled to benefits under the Medical Care Act.

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[1] Annual Report, The Medical Care Act, 1972, Health and Welfare Canada, Queen's Printer, Ottawa, p.6.

[2] Ibid., p.5.

[3] The relevant federal statutes are as follows:
Aeronautics Act
Civilian War Pensions and Allowances Act
Government Employees Compensation Act
Merchant Seaman Compensation Act
National Defence Act
Pension Act
RCMP Act
RCMP Pension Contribution Act
RCMP Superannuation Act
Veterans Rehabilitation Act

Federal Financial Contributions to Provincial Plans

Existing Arrangements

The Medical Care Act specifies the amount of the yearly contribution to a province to "be equal to 50% of the per capita cost for the year of all insured services furnished by medical care insurance plans by participating provinces multiplied by the monthly average for the year of all insured residents in the province, excluding members of the armed services, RCMP and penetentiary inmates".[1] This formula allows the poorer provinces with lower (than the national average for Canada) per capita costs to receive payments in excess of 50% of their costs while the richer provinces with higher than average per capita costs receive less than 50% of their costs.

The costs of administration or any premiums or other amounts payable[2]

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[1] Canada, The Medical Care Act, op. cit., subsection 5(1), (2).

[2] Total federal contributions from Table V will not agree with figures found in the annual reports of the provincial authorities responsible for the plans because they record only the payments received from the federal government in the 12 month period. The federal contribution for a particular fiscal year is paid over a two year period. During the fiscal year in question, 90% of the estimated federal contributions, calculated prior to the start of the year, is paid in monthly advances. In the next fiscal year, advance and final adjusting payments for the year in question are made on the basis of audited cost reports from the provinces.

TABLE I

PROVINCIAL TOTAL AND PER CAPITA COSTS OF INSURED SERVICES
AND FEDERAL CONTRIBUTIONS BY YEAR 1968-69 to 1971-72

Province	Year	Average No. Insured Persons	Total Costs Insured Services	Provincial Per Capita Cost	Total Federal Contribution
British Columbia (July 1,1968[2]	1968-69	1,854,063	50,058,739	27.00	22,571,023(24.35)[1]
	1969-70	1,995,594	106,942,396	53.59	38,764,260(37.94)
	1970-71	2,119,748	121,863,469	57.49	53,065,929(50.06)
	1971-72	2,193,000	132,459,901	60.40	59,883,796(54.61)
Alberta (July 1,1969)	1968-69				
	1969-70	1,173,000[3]	41,756,736	35.60	22,255,407
	1970-71	1,604,655	82,582,484	51.46	40,171,303
	1971-72	1,641,981	86,572,984	52.72	44,837,234
Saskatchewan (July 1,1968)	1968-69	936,180	17,877,073	19.10	11,396,883
	1969-70	950,750	30,788,926	32.38	18,138,726
	1970-71	935,756	34,571,462	36.95	23,425,786
	1971-72	928,690	40,025,240	43.10	25,359,545
Manitoba (April 1,1969)	1968-69				
	1969-70	971,000	39,423,819	40.60	18,422,847
	1970-71	1,003,252	53,040,698	52.87	25,115,485
	1971-72	1,010,337	54,957,880	54.40	27,589,063
Ontario (Oct.1,1969)	1968-69				
	1969-70	3,580,138[4]	124,067,686	34.65	67,926,195
	1970-71	7,317,341	441,452,947	60.33	183,182,861
	1971-72	7,587,000	479,716,124	63.23	207,176,635

TABLE I (Cont'd)

Province	Year	Average No. Insured Persons	Total Costs Insured Services	Provincial Per Capita Cost	Total Federal Contribution
Quebec	1968-69				
(Nov.1,1970)	1969-70				
	1970-71	2,503,750(5)	60,371,510	26.71	62,679,064
	1971-72	6,026,000	303,441,409	50.36	164,550,700
New Brunswick	1968-69				
(Jan. 1,1971)	1969-70				
	1970-71	154,250(6)	2,105,138	13.65	3,861,506
	1971-72	632,000	21,139,685	33.45	17,257,893
Nova Scotia	1968-69				
(Apr.1,1969)	1969-70	746,000	21,581,606	28.93	14,153,908
	1970-71	751,000	30,339,834	40.40	18,800,590
	1971-72	776,000	32,935,739	42.44	21,190,071
Prince Edward	1968-69				
Island	1969-70				
(Dec.1,1970)	1970-71	36,333(7)	606,410	16.69	909,563
	1971-72	111,000	4,294,957	38.69	3,031,054
Newfoundland	1968-69				
(Apr.1,1969)	1969-70	514,000	12,262,217	23.86	9,752,156
	1970-71	519,000	14,969,628	28.84	12,992,685
	1971-72	525,000	15,763,046	30.02	14,336,066

Notes: (1) Average national per capita costs
(2) Date of inception of provincial plan
(3) 9/12 of 1,564,000
(4) 6/12 of 7,160,276
(5) 4/12 of 6,045,000
(6) 3/12 of 617,000
(7) 4/12 of 109,000

Sources: Annual Reports, Medical Care Act, years ending March 31, 1969, 1970, 1971, 1972.

are not to be included when calculating the costs of insured services incurred by a province.[1] The insured services cost-shared include comprehensive medical services and certain surgical-dental services undertaken by dental surgeons in hospital.[2] Table 1 outlines total provincial costs as well as national and provincial per capita costs as well as the total federal contribution[3] by fiscal year 1968-69 to 1971-72.

The federal act provides that at least six months before March 31st, 1973, the Government of Canada would review the method of determining the amount of the annual federal contribution for provincially administered health services with a view to formulating proposals "for any changes in the method that then appeared necessary or desirable".[4] During 1969, the Committee on Health Costs pointed out that existing cost-shared programs under both the Medical Care and Hospital Insurance and Diagnostic Services Acts were contri-

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[1] Canada, The Medical Care Act, op. cit., Subsection 5(4)

[2] Annual Report, Medical Care Act, op. cit., p.25.

[3] Total federal contributions from Table V will not agree See Note 2, previous page.

[4] Canada, The Medical Care Act, op. cit., Subsection 8.

buting to the rapid rise in health care costs in Canada. The task force made some 300 recommendations relating to more economic methods of providing health services and substituting lower cost alternatives.[1]

In the intervening three years numerous federal-provincial conferences have considered new federal proposals for financing health care. The overall federal rationale seems to be to move the responsibility for the control of health costs to the provinces by eliminating the present cost-reimbursement system. It is useful to provide a brief outline of the federal proposals and current provincial concerns in this regard.

Proposed New Arrangements for Financing Health Care

The first federal proposal of a new formula for determining the amount of the annual federal contribution for provincially administered health services was offered the provinces at the Federal Provincial Conference of Ministers of Health in December, 1970.[2] In subsequent federal-provincial

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[1] Task Force Reports, Vol. III, op. cit., pp.169-358.

[2] News Release. Health & Welfare Canada, "Proposed New Arrangements for Financing Health Care," May 8, 1973, p.1.

meetings up to the meeting of premiers in Ottawa, May 23-25, 1973, these federal proposals were revised and modified to accommodate provincial reservations and concerns. Under the proposed new system, the federal government would no longer relate its payments for health services to a share of provincial expenses; instead, its objective is to establish a uniform per capita grant system to all provinces within a ten year period. In "federalese" it sounds like this; "the new approach would be so designed to allow the provinces flexibility in determining and pursuing their own priorities for spending in the health field."[1]

Basically, the plan would involve replacement of contributions payable under the Hospital Insurance and Diagnostic Services Act and the Medical Care Act by the following:

1) A federal per capita grant based on expenditures in the year 1971-72, escalated by a growth factor comprised of the yearly GNP increase plus one per cent, with the extra percentage point to be phased out over a five year period. The grant is to begin in fiscal 1974-75 but the escalator would start in 1973-74. These grants are to be adjusted for population changes

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[1]News Release. Health and Welfare Canada, "Proposed New Arrangements for Financing Health Care,", Ibid.

and the inclusion of an optometry benefit and would be gradually levelled over a ten year period toward a uniform per capita payment to all provinces.

2) The principal standards of existing legislation are to be retained as regards comprehensiveness, accessibility, universality and portability.

3) A risk-sharing feature involving additional federal contributions to provinces where provincial spending grows more rapidly than the rate of growth of federal payments. This contribution would be repeated on a diminishing basis over a number of years.

4) A guarantee against loss of federal contributions under the Canada Assistance Plan where a province changes the basis for its support to health or health related services.

5) A 640 million dollar thrust fund beginning in 1973-74 to be distributed to the provinces on a per-capita basis. This fund would be used by the provinces for the development of more efficient health delivery systems.

6) Transfer of additional tax points to the provinces as well as the excise taxes on cigarettes and tobacco.[1]

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[1] News Release. Health and Welfare Canada, "Proposed New Arrangements for Financing Health Care", op. cit., pp.6-12 (proposals 1-6 summarized).

It is likely that all provinces would receive a higher level of contributions over the first five year period than they would in the same period under existing arrangements. However, the federal rationale is that a gradual cost de-escalation will occur which will result in a reduction of total spending on health services by Ottawa and the provinces by the end of the ten year period under the new arrangement.

The provinces are reluctant to accept these new proposals. Premier Lougheed of Alberta expressed the general provincial concern at the meeting of premiers in Ottawa in May, 1973 when he stated that:

> "although the new proposal might mean more money now, it will mean more risk in the future since the provinces would be completely responsible for health care costs in a few years."[1]

The poorer provinces are especially skeptical since they stand to benefit less than the richer provinces from transfers of tax points and they fear that under the new system they will be unable to maintain a standard of services comparable to the other provinces.

At any rate, it seems likely that the final agreement reached will be something close to the latest federal proposal. At the close of the premiers conference in May of this year, Prime Minister Trudeau, referring to the federal proposal, was quoted as stating that;

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[1] L. Mognahan, "Premiers in no Panic to Accept Federal Proposal", Financial Post, June 2, 1973, p.18.

> "although it (the latest federal proposal) has not been accepted by the provincial premiers, it is still on the table awaiting provincial approval - should it be rejected, there will be no additional proposals and further modification is out of the question."[1]

At this writing, the federal proposals remain "on the table".

The Provincial Medical Care Plans

Having examined the structure and financing of the federal Medical Care Act, it is now useful to similarly examine the various provincial plans which have developed in response to the federal legislation. Provided the provinces adhere to the four main principles of the Medical Care Act, it allows them considerable latitude in working out the administrative and fiscal details of the operation of their health insurance plans.

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[1] Canadian Press, "Prime Minister Expresses Disappointment Following Premiers' Conference", The Albertan, May 25, 1973, p.2.

Organizational Structure of Provincial Plans

The Commission is the predominant form of organizational structure used to administer the provincial plans. At present, all provinces except Quebec and New Brunswick utilize Commissions as the public authority responsible for the plan.[1] Quebec utilizes a Health Insurance Board which is a corporation composed of 14 members. The president of the board acts as general manager. The board is comprised of representatives from business, labor, the health professions, consumers and the government.[2] New Brunswick administers its plan through the Medicare Division of the Department of Public Health.[3]

Not all aspects of private insurance for physicians services were phased out after 1968. In Saskatchewan, two non-profit private plans[4] continue as fiscal intermediaries to transmit claims and payments between physicians and the public insurance administration.[5] Nova Scotia uses a

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[1] Annual Report, Medical Care Act, 1972, op. cit., p.5.

[2] Annual Report, Quebec Health Insurance Board, 1971-72, Quebec, Queen's Printer, 1972, p.4.

[3] Annual Report, Medical Care Act, op. cit., p.22.

[4] Group Medical Services and Medical Services Incorporated.

[5] Annual Report, Saskatchewan Medical Care Insurance Commission, 1972, Queen's Printer, Regina, 1972, p.10.

conjoint public authority consisting of Maritime Medical Care Incorporated, (formerly a doctor-sponsored plan), which acts as administrative and fiscal agent and a separate operating commission appointed by government as the policy-making body.[1] Similarly, in British Columbia, designated private agents[2] act as non-profit carriers and perform administrative functions on behalf of or under the supervision of the public authority.[3]

Ontario discontinued the use of designated agents as of May 31st, 1972. Their functions were taken over by the Ontario Health Insurance Plan (OHIP) which came into being on April 1st, 1972 and replaced the Ontario Hospital Services Commission and the Ontario Health Services Insurance Plan.[4] In all other provinces, the administrative apparatus was absorbed into the public authority. In Manitoba, as in Ontario, one commission is respon-

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[1] Annual Report, Nova Scotia Medical Care Insurance Commission, 1972, Queen's Printer, Regina, 1972, p.10.

[2] The British Columbia Medical Plan, a government agency (individual subscribers) as well as two private carriers, the Medical Services Association and the C.U.&C. Health Services Society (group contracts). Annual Report, Medical Care Services Commission of British Columbia, 1972, p.7.

[3] Annual Report, Medical Care Act, op. cit., p.19.

[4] Personal Communication, Mr. J.R. Berry, Ontario, Health Ministry, October 4, 1973.

sible for both the hospital and health insurance plans.[1] In all provinces, the final assessment and approval of claims is the responsibility of the public authority.[2]

In some provinces, whether integrated with the public insurance plan or not,[3] private plans have continued to offer policies to protect against the cost of prescribed drugs, private duty nursing care, services of para-medical personnel and other services as yet not covered by the government plans.

Physician Remuneration Under the Plans

The federal medicare legislation is flexible insofar as physician payment is concerned. Doctors may be remunerated by full or part-time

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[1] Annual Report, Medical Care Act., op. cit., p.14.

[2] Ibid., pp.7-26.

[3] For example, non-group membership in the Alberta Blue Cross Plan is available to insured residents through the Alberta Health Care Insurance Commission at reduced rates. The Commission reimburses the Blue Cross Plan for both the claims expenditure and the administrative costs incurred in its non-group operation.

salaries, sessional[1] fees or various forms of contractual arrangements including capitation[2] and by the fee-for-service method.

The salaries of physicians providing insured services in hospital settings, (mental, tuberculosis and cancer) public health units or general medical services can be cost-shared. These cost-shared salaries can include surcharges representing fringe benefits, costs of occupied space and other overhead incurred in the process of providing insured services. The maximum shareable amount of the overhead is an amount equal to 50% of the salary or portion of the salary paid to the physician.

Under the fee-for-service method of payment, the provincial public authority, in negotiation with the medical profession, establishes a "schedule of benefits" which contains a list of procedures covered, applicable fees, amount of pro-ration where applicable, and rules of assessment. These benefit schedules are based upon medical association fee schedules and may be identical to them.[3] The public authority also sets out the rules and

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[1]Sessional payments refer to salary given for teaching or research for a given period and fee-for-service payments can be added for diagnostic and therapeutic services performed outside the session by the physician.

[2]Capitation refers to the assignment of a certain fee per person under the care of a physician for a given time period, usually one year.

[3]Schedules are identical in Alberta and Saskatchewan.

regulations respecting billing and collection of accounts for participating[1] and non-participating physicians. Regulations as to extra-billing vary between provinces, but as a general rule, in most provinces participating physicians can only extra-bill the patient if the patient is notified and agrees in writing to the extra charge. Quebec is the only province which does not allow extra billing by participating physicians and also the only province where the patient cannot seek reimbursement of fees paid to a non-participating physician for insured services. Appendix 1 summarizes payment methods under the provincial plans.

Physicians bill the plans according to the schedule of benefits. These accounts are pro-rated by 10 to 15% in all provinces except Alberta which pays 100% of the revised 1969 fee schedule. As a general rule, health professionals of other provinces can participate and in such cases, reimbursement is made according to the fee schedule of the patient's home province.

As noted earlier, the fee-for-service method is the predominant method of physician remuneration under Medicare with salary making up the balance. In fiscal 1970-71, less than 1% of total payments under the provincial plans were made to salaried physicians, with the exception of Newfoundland,

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[1] Generally speaking, a participating physician is one who accepts payments directly from the public authority.

where they amounted to 3% of the total.[1] This higher percentage is accounted for by the fact that most general medical services in outpost locations in Newfoundland are provided by salaried physicians.

Benefit Coverage

Benefit coverage available under the plans differs between provinces. In addition to the federally cost-shared comprehensive medical services and surgical dental procedures referred to earlier, Quebec, Ontario, the three prairie provinces and British Columbia offer additional benefits which are generally provided on a limited basis and in the case of British Columbia are available only to residents within the province. Costs of these benefits are not cost-shareable and are borne entirely by the province concerned. Table II outlines the extra benefits which are available by province in 1971-72, restrictions to utilization which apply, as well as yearly cost.

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[1] Annual Report, The Medical Care Act, 1971, Health and Welfare Canada, p.17.

TABLE II

EXTRA BENEFITS, RESTRICTIONS AND COST, BY PROVINCE, FISCAL 1971-72

Province	Extra Benefits	Restrictions	Cost to Province
British Columbia	Optometry	All available within province only	5,563,924 (No breakdown available)
	Chiropracty Naturopathy Osteopathy Physiotherapy-limited Podiatry Orthoptic treatment Red Cross, VON & Special Nurses		5,563,924
Alberta	Dental Services as specified in regulations.		Not separately reported
	Optometric services	1 refraction per year ($12.50)	2,207,407
	Osteopathic services	Maximum of $5.00 each visit	33,506
	Chiropractic services	Maximum of $6.00 each visit with a limit during each benefit period of $100.00 (single) or $150.00 (one or more residents.	5,082,918
	Podiatric services & appliances		434,854
			7,758,685

TABLE II (Cont'd)

Province	Extra Benefits	Restrictions	Cost to Province
Saskatchewan	Optometry	1 refraction in any 12 month period up to 17th birthday One in any 36 month period between 17th-46th birthdays and one in any 24 month period thereafter.	1,064,262 1,064,262
Manitoba	Chiropractic	Limited	1,374,654
	Optometric	Limited	788,916
	Limb and spinal braces (prescribed by general practitioner)		80,187 2,243,757
Ontario	Optometry		5,768,945
	Dental		5,249,742
	Chiropractic	12,782,923 $100.per 12 month period)	
	Chiropody	1,935,723 " ")	15,355,955
	Osteopathy	637,309 " ")	
	Extended health care in nursing homes	Patient must pay $3.50 daily	26,374,642
Quebec	Optometry		8,030,900
	Oral surgery in university institution		Not separately reported 8,030,900

Sources: Annual report Medical Care Act, year ended March 31, 1972
Annual reports of Public Authorities responsible for respective province
Medical care insurance plans 1971-72

Financing of Provincial Share of Costs

The Medical Care Act also leaves each province with substantial flexibility in choosing the way in which its plan will be financed. The provincial plans are presently financed either through premiums, taxation, general revenues or a combination of these methods.

British Columbia, Alberta, Manitoba, Ontario and Saskatchewan[1] utilize a premium system supplemented by general provincial revenues. There is a conjoint premium for both hospital and medical services in Alberta, Manitoba and Ontario.[2] Premium subsidies are available for persons in certain income and age groups in those provinces using the premium system. Quebec uses a provincial income tax surcharge and payroll tax to finance its share of plan costs and to date has been successful in raising

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[1]Effective January 1st, 1974, no medical care premiums will be levied in Saskatchewan. From that date the medical care insurance fund will be solely supported from consolidated provincial revenues. Personal Communication, G. C. Patchett, Executive Director, Saskatchewan Medical Care Insurance Commission, Oct. 12, 1973.

[2]Annual Report, Medical Care Act, 1972, op. cit., pp.10-15.

more than sufficient revenues to meet costs by this method.[1] All four Atlantic provinces finance their plans from general provincial revenues.

Table III shows the methods of provincial financing, premiums payable and exemptions where applicable.

This concludes a brief outline of the structure and organization of health insurance in Canada. Chapter IV will deal with the supply and demand characteristics of medical service markets and the differences between them and other economic markets.

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[1] Annual Report, Quebec Health Insurance Board, 1970-71, Quebec Queen's Printer, 1971, p.18.

TABLE III

METHOD OF FINANCING OF PROVINCIAL SHARE OF MEDICAL CARE INSURANCE

Province	Method of Financing	Premiums Payable					Premium Exemptions
			REGULAR	NO TAXABLE INCOME	TAXABLE INCOME $500 OR LESS	TAXABLE INCOME $1000 OR LESS	
British Columbia	Subscriber Premiums General Revenues	Single	$ 60/yr.	$ 6/yr.	-	$ 30.00	Social Assistance Recipients
		Couple	$120/yr.	$12/yr.	-	$ 60.00	
		Family of 3 or more	$150/yr.	$15/yr.	-	$ 75.00	
Alberta	Conjoint Premium for Hospital & Medical insurance General Revenues	Single	$ 69/yr.	$24/yr.	$36/yr.	-	Persons over 65 years
		Family of 2 or more	$138/yr.	$48/yr.	-	$ 72/yr.	Social Assistance Recipients
Saskatchewan	General Revenues Premiums(1)						
Manitoba	Conjoint Hospital and Medical Care Insurance Premium	Single	$ 6.60/yr.	No premium Subsidization			Public Assistance and Recipients in similar category.
		Family	$ 13.20/yr.				

TABLE III (Cont'd)

Province	Method of Financing	Premiums Payable				Premium Exemptions
		REGULAR	NO TAXABLE INCOME	TAXABLE INCOME $500 OR LESS	TAXABLE INCOME $1000 OR LESS	
Ontario	Conjoint hospital & medical care premium	Single $132. Couples & families $264.00		Taxable income less than $1000 (single) or $2000 couples & families $66.00	$132.00	65 years and over who have been resident in the province for 12 months
Quebec	Provincial Income Tax Surcharge 0.8% to ceiling of $175. of income from salary or $200 otherwise. Payroll tax of 0.08 paid by employees					Single persons with incomes under $2000 and families under $4000.
N.B., N.S. PEI, & Nfld.	General provincial revenues					

(1) Effective January 1, 1974, no medical care premiums will be levied.

SOURCE: Annual Reports, Provincial Medical Care Plans, 1971-72. Annual Report, Medical Care Act, 1972.

CHAPTER IV

MEDICAL SERVICE MARKETS

General Conditions

The form of various econometrical relationships in medical service markets[1] have not been precisely defined. The reason for this lack of precision is partially found in the difficulties of defining and measuring inputs and outputs in the health care field.[2] However, in the main, relatively few in-depth economic studies have been carried out in this area. It is necessary here to outline certain general characteristics which distinguish medical service markets from other economic markets where the price system serves as the mechanism for allocating all resources.[3]

Three important differences between medical service and

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[1]For purposes of this discussion, medical services refer to therapeutic, preventive and rehabilitive services and care. No attempt is made to specify the units in which medical services might be measured.

[2]Paul J. Feldstein, S. Kelman, "A Framework for an Econometric Model of the Medical Care Sector". Empirical Studies in Health Economics, ed. H.E. Klarman, Johns Hopkins Press, Baltimore, (1970), p.171.

[3]See Paul A. Samuelson, A. Scott, Economics, McGraw-Hill, Toronto, (1971), pp.80-85 for a discussion of resource allocation in traditional economic markets.

perfectly competitive markets should be noted.[1] Firstly, consumers of health care have little knowledge about the goods (services) available in the medical market and hence cannot judge the quality of physicians or relative merits of one course of treatment over another. The consumer of medical services relies on the advice of his physician concerning the course of treatment to follow. "Learning by doing" is not an important means of consumer education given the complexity of medical technology and the limited frequency with which many illnesses are encountered in a lifetime.

A second distinguishing feature of medical service markets is the lack of competition between producers through mechanisms such as advertising and price competition. These practices are forbidden by pro-

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[1] The reader is referred to the following sources for a detailed treatment of the special characteristics of medical service markets.

Sheila M. Musbkin, "Why Health Economics", The Economics of Health and Medical Care, Ann Arbor, The University of Michigan Press, (1964), pp.4-11.

Herbert E. Klarman, The Economics of Health, New York, Columbia University Press, (1965), pp.43-53.

Victor R. Fuchs, Ed. Essays in the Economics of Health and Medical Care. "The Contribution of Health Services to the American Economy", New York, Columbia University Press, 1972, pp.5-8.

fessional codes of ethics and sanctioned by government agreements which fix prices for a year or more under existing fee schedule agreements. Entry restrictions and licensing requirements further ensure that the supply of physicians are kept within norms which will not lead to market alterations which could result in lower incomes for physicians.[1] Finally, third party payment for medical services removes the consumer's interest in determining whether the value of the goods (medical services) which are received are truly worth the cost. It should be recognized that under medicare a zero price illusion or a free good syndrome is built into the consumers use of medical services.[2]

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[1] Victor R. Fuchs, op. cit., p.8. "Severe restrictions on entry are assured through the medical professions control of medical schools, licensing requirements and hospital requirements. Advertising is forbidden and price competition is severely frowned upon. Critical comment concerning the output of other physicians is regarded as unethical." Also see Harris S. Cohen, "Professional Licensure, Organizational Behaviour and the Public Interest", Millbank Memorial Fund Quarterly, 51, 1, (Winter 1973), pp.73-88, for a detailed examination of the implications of professional licensure in the health care sector.

[2] See Chapter III. Payments for medical services are obtained predominantly from tax revenues in Canada at present. Medicare premiums in effect in some provinces assume the nature of an extra tax to the health care consumer because there is no direct relationship between service utilization and the rate of premium which is paid. The consumer does not therefore consider the premium a charge for health goods and services. There is in effect, a zero price illusion.

Given the lack of constraints on the medical care consumer and the lack of price competition among the producers of medical services, it is not difficult to understand why the prices and quantities of medical care do not approach those that would result from perfectly competitive market conditions. It is of-value to examine the way the peculiarities of medical service markets affect the supply and demand for medical services delivered.

Demand Characteristics

In discussing demand for medical services, differentiation between the concepts of wants and needs for these services is important.[1] This is important because the demand for health goods and services derives from two sources.

The first source is the individual consumer's "wants" for goods

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[1] Wants, needs and demands are sometimes used inter-changeably when discussing medical services. Wants and needs are generally used by health professionals and lay persons while demand is an economists term used to denote a willingness and ability to pay for a good or service. Because the wants and needs play an important role in determining the demand for medical services, the concepts are briefly defined here. For a more detailed treatment of these concepts, see Kenneth E. Boulding, "The concept of Need for Health Services" Millbank Memorial Fund Quarterly, 44, Oct. 1966, pp.202-233.

and services which Jeffers,[1] et. al. have defined as:

> "that quantity of medical services which the members of a population feel they ought to consume over a relevant time period, based on their own psychic perception of their health needs."

The second source of demand derives from the population needs for health services, Jeffers,[2] et. al. have defined "needs" for medical services as:

> "that quantity of medical services which expert medical opinion believes ought to be consumed over a relevant time period in order for its members to remain or become as healthy as is permitted by existing medical knowledge."

Thus, while the consumer initiates that portion of demand for medical services in attempting to satisfy their psychologically formulated "wants", the medical practitioner is the central agent in the initiation of that portion related to "needs". The medical practitioner, within the constraints imposed by the patients cultural, economic and social situation, as well as the availability of medical services in an area, decides on the type and length of treatment which is provided the patient for any illness or disability.

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[1] James R. Jeffers, Mario F. Bognanno, John C. Bartlett, "On the Demand versus Need for Medical Services and the Concept of Shortage", American Journal of Public Health, 61, January, 1971, p.47.

[2] James R. Jeffers, et. al., op. cit., p.46.

This physician initiated part of the demand for medical services is, as noted, predominantly based on the physician's concept of the need for the services provided. In addition, however, a number of other factors appear to play a part in this aspect of demand. One such factor is the cost to the patient of any treatment suggested, which is in turn, related to the "wants" concept we have touched upon. Within the context of medicare, the cost of any treatment to the patient is not of great importance because the effective price of medical care to him is, in most instances, only the value of the time he must spend and travel expenses he might incur in order to obtain it.[1] This results in the demand for medical care being quite inelastic with respect to the price.[2]

Another factor bearing on this aspect of demand for medical services which is physician generated is the influence of the financial return to the physician accruing from any prescribed treatment or service provided.

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[1] The exception to this rule would be the extra-billing practices which are allowed in some provinces (See Appendix 1).

[2] Inelasticity with respect to price refers to the proportional changes with respect to the quantity demanded when price changes. If quantity demanded decreases proportionately less than the price has increased, inelasticity is said to exist. See Paul A. Samuelson, and A. Scott, Economics, op. cit. p.160.

A number of studies attempting to delineate the influence of this factor have been carried out in the United States and Canada.

Monsma[1] in studies related to demand for physician services, concluded that the demand for medical care varied directly in response to the marginal return to the physician. He assumed that the marginal return to the supplier of services would make no difference to the consumer except as it influenced his marginal cost. Data from two differing health insurance plans[2] were examined, one paying a fee for each service performed as per a fee schedule, one contracting with a group of physicians on a capitation basis. It was found that the fee-paying plan had surgical rates almost two thirds greater than the plan with the capitation system of payment. Subsequent

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[1] George N. Monsma, "Marginal Revenue and the Demand for Physicians Services" in Empirical Studies in Health Economics, The Johns Hopkins Press, Baltimore, 1970, pp.145-160.

[2] The data was collected from two health insurance plans in New York in 1959; Health Insurance Plan of Greater New York and Group Health Insurance. Samples from the two plans were closely matched in age, sex, family size, education and income. The data had been reported by the National Opinion Research Center. See Odin W. Anderson, Paul B. Sheatsley, "Comprehensive Medical Insurance", Health Information Foundation Research Series No. 9, New York, (Health Information Foundation, 1959).

studies[1,2] using data from the same companies supported his conclusions that financial considerations constitute a factor influencing the decisions of a physician to recommend a given treatment.

A study carried out in a Newfoundland outpost[3] documents a physician's activities during the same calendar month during two successive years. During the first period he was salaried and during the second received payment on a fee-for-service basis. The population and health status remained constant during both periods, yet during the salaried period less than 300 services were rendered while approximately 1,100 services were provided under the fee-for-service payment arrangement.

The findings from the Monsma, Densen and Newfoundland studies strongly suggest that financial considerations are an important factor in the provision of medical services by the physician; however, they do not allow one to determine where there is an actual under-servicing under a salary or capitation system. While no categorical answer to this question exists, the evidence

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[1]Paul Densen, "Prepaid Medical Care in a Dual Choice Situation", American Journal of Public Health, 50, November 1960, pp.1710-1726.

[2]Paul Densen, "Comparison of a Group Practice and a Self-Insurance Situation", Hospitals, 36, No. 22, Nov., 1962, pp.63-68.

[3]R. A. Armstrong, "Some Observations on Methods of Physician Remuneration in Canada", op. cit., p.4.

points to a condition of over-utilization under a fee-for-service system. A recent study in British Columbia[1] involved the application of econometric techniques to an analysis of inter-regional output of medical services in the light of related physician density patterns. The results from this study tend to confirm the latter view.

Supply Characteristics

It is necessary to briefly examine the supply side of medical service markets given the fact that utilization and expenditure patterns observed in this market are "the result of the complex interplay of demand and supply".[2] It is evident from the previous discussion that the physicians dual

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[1] R.G. Evans, E.M.A. Parish, F. Sully, "Medical Productivity, Scale Effects and Demand Generation", Canadian Journal of Economics 6, 3, (August, 1973) pp.393-420.

[2] Victor R. Fuchs, "The Growing Demand for Medical Care", The New England Journal of Medicine, 279, (July 25, 1968), p.191.

role-acting on behalf of the consumer and also as an entrepreneur providing goods and services[1] - destroys the clarity of the distinction between supply and demand of medical services. In this context, one recent writer has referred to physician induced demand for medical services as "a special type of demand .... usually known as supply".[2]

Fuchs[3] indicates that there are three main elements to be considered in studying the supply side of any industry. These are (1) the costs of production, supply of labor and capital; (2) the number and way factor inputs are combined to produce outputs; and (3) the degree of monopoly control or other market imperfections which might exist. With regard to market imperfections, we have already discussed .

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[1] R. G. Evans, Price Formation in the Market for Physicians Services in Canada, 1957-1969. Ottawa, Information Canada, 1972, p.32. Evans writes about the failure of the price mechanism to play an equilibrating role in medical markets. "The price of medical services does not adjust to clear the market since it is not particularly sensitive to "shortages" perceived either by suppliers or consumers. Market clearing takes place through a complex of informal rationing mechanisms in which the role of the supplier as agent for the consumer is a central feature".

[2] G. Hodgson, "The Politics of American Health Care", Atlantic Monthly, 232, 4, (October, 1973), p.59.

[3] V. R. Fuchs, "Basic Forces Influencing Costs of Medical Care, in Essays in the Economics of Health and Medical Care, New York, Columbia University Press, 1972, pp.45-46.

the effects of restriction of entry and medical licensure on the labor supply in the medical manpower field. An analysis of the supply of capital to the medical industry would involve a study of medical training and capitalization of hospitals and other institutions which are beyond the scope of this thesis. Therefore, discussion in this section of this chapter will be limited to the productivity aspects of the supply of medical services in the light of market imperfections which exist at the present time.

In examining productivity in medical care, one is hampered by the absence of reliable measures of its output because of our lack of knowledge concerning the precise contribution of medical care to health.[1] As a result of

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[1] U. Reinhardt, "A Production Function for Physicians Services", Journal of Economics and Statistics 54, (February, 1972) pp. 55-66. Reinhardt writes: "Some students of the health care sector have argued that a satisfactory definition of the physicians output could be developed only in terms of the physicians impact on his patients health. On the surface of the matter, this definition of output may appear quite sensible. It would be extremely difficult, however, to translate this definition into an operational measure of output, if that measure is to be used in a cross-section analysis of individual physicians. To begin with, an impact on health measure of output would have to account not only for actual, positive changes in patient's health but also for the largely unobservable prevention of potential illness. Secondly, the impact-on-health measure would be meaningful only if it could be properly adjusted for all other factors (including drugs, the services of hospitals and certain environmental factors) influencing the health status of the physicians clientele. Since the enormous range of information required for such an adjustment is best procured by treating the physician simply as the producer of an intermediary good, without regard to the ultimate effect of that good on the patients health - the volume of services produced by a physician during a given period of time. The physicians rate of output has to be measured indirectly either in terms of his weekly rate of office visits in terms of his total (office, hospital and home) patient visits per week or in terms of his aggregate annual billings to patients (gross sales revenues".

increases in the standard of living, people have begun to demand more medical services of a more specialized nature. These expensive procedures consume a great deal of capital and labor and may so act to decrease productivity in the sense that the same amount of resources used in other ways may result in a larger marginal contribution to the health care consumer. This is only speculation, however, as we arrive back at the problem of measuring relative marginal contributions.

The central agent in the supply of medical services is, of course, the physician, whose behaviour is described by some health care economists as a "profit maximizer concentrating on marginal revenue".[1] When this description is considered within the context of the market imperfections noted in part 1 of this chapter, important cost and supply implications are obvious.[2] The income

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[1] Paul J. Feldstein, S. Kelman, op. cit., p.173. In addition, they state that "the physician attempts to minimize the cost of treatment within the constraints of his own income and leisure time objectives. He will select that institution or combination of institutional settings which will be consistent with both the needs and resources of the patient and these constraints. The prescribed medical package takes into account not only these factors but also their respective prices, the type and extent of the patients insurance coverage and his income level."

[2] R. G. Evans, op. cit., p.32. Evans contends that the persistence of non-equilibrating prices leads to the situation where "expanding the supply of physicians will drive up prices as well as costs and increasing the technical efficiency of physicians may reduce unit prices but will drive up total costs."

maximizing physician, under the price-protection of the fee schedule, maximizes his income by providing as large a number of services as possible. He will attempt to provide these in his office or in an institutional setting in the most efficient manner, within available time constraints. As we have noted in Chapter III, since the fee schedules tend to discriminate against home visits, he will predominantly attempt to supply as many services as possible in the office or hospital setting.

Plain[1] has outlined three factors which tend to encourage the income maximizing individual practitioner to substitute hospital services for services rendered in his office. These influences, combined with the tremendous increase in specialization referred to earlier, which necessitates the use of in-hospital equipment, has important implications for the supply of medical services as well as the total costs of health services. If there is an abundant supply of hospital beds, the profit maximizing medical practitioner will use them as a vehicle for supplying medical services for the reasons we have outlined.

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[1] R. M. H. Plain, "An Economic Appraisal of the Levels of Remuneration Earned by Physicians in the Province of Alberta". Unpublished Interim Report, May 23, 1973, p.32. "First, given an office and a nurse, the short-run costs are virtually all fixed costs. The larger the volume of services given, the lower the cost per unit and the greater the net income per volume of services. Second, the substitution of hospital for office services virtually eliminates outlays for relatively expensive labor and capital facilities. The fee schedule rarely discriminates between hospital and office based procedures. The net result is that zero costs are incurred for carrying out a given procedure while the fee-for-service remains unchanged. Thirdly, patients generally resist being treated for minor procedures within a clinic if additional payments have to be made for out-of-pocket expenses."

This concludes a brief examination of the supply characteristics of medical service markets. Admittedly, it is impossible to separate the mutual market supply-demand influences on medical services. What has been provided is meant to serve only as a broad classification of these influences. Chapter V will look in detail at trends which have taken place recently in medical service markets in Canada and will attempt to place the current state of health care insurance in Canada into clearer perspective. It is hoped that the information provided in the earlier chapters will provide the proper historical background as well as an understanding of influences which have been operating to effect the trends and movements which we will examine.

CHAPTER V

RECENT TRENDS IN MEDICAL SERVICE MARKETS IN CANADA

This chapter will attempt to improve our understanding of recent trends in one area of the medical care market, the demand for and supply of physicians' services. The physician is the key to the health care sector since primary control over health services rests with him and indirectly with various boards and agencies. The lack of a "pricing mechanism" to encourage economic use of resources has been discussed in Chapter IV. The cost-reimbursement system of funding health care which induces a bias towards health care in hospitals makes the role of the physician even more important when considered in relation to his ability to generate overall costs in the health care system. The physician is the effective decision maker. The allocation of health care resources is directly and indirectly decided by the physician.

This chapter is divided into four sections. Section one will deal with comparisons of expenditures on physician services in recent years while Section two consists of an examination of changes in physician incomes during the same period. The last two sections will deal with the influences of changes in physician supply and the utilization of physician services on their earnings and total health care expenditures in Canada in recent years.

Expenditures on Physicians Services

Physicians services consume a large portion of total medical care expenditure directly. Expenditure on these services amounted to 24.2 percent of total expenditures on personal health care in Canada in 1971. Table IV outlines expenditure by category on personal health care from 1960 to 1971 and Table V gives percentage distribution by category during the same period. One can see from these tables that while the percentage allocation for physician services has remained relative constant during the period, there has been over a threefold increase in the total dollar amount.

Table VI shows the per capita expenditure on physician services by province from 1960 to 1971 with percentage increase in expenditure over the preceding year outlined in Table VII. Table VIII shows percentage changes in per capita costs of physicians services for the years 1966 to 1969 as well as post-medicare percentage changes in per capita fee payments by fiscal years 1970-71 to 1972-73 over preceding fiscal years. Average rates of changes for both groups are also provided.

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[1] These figures are as up to date as possible and have not as yet been published. They are calculated from provincial plan data and will not be comparable to other tables presented.

TABLE IV

EXPENDITURE ON PERSONAL HEALTH CARE, CANADA, 1960-1971 IN THOUSANDS OF DOLLARS

	HOSPITAL SERVICES								
YEAR	GENERAL AND ALLIED SPECIAL	MENTAL	TUBER-CULOSIS	GOVERN-MENT OF CANADA	ALL HOSPITALS	PHYSICIANS' SERVICES	DENTISTS' SERVICES	PRES-CRIBED DRUGS	TOTAL
1960	640,587	121,794	28,730	53,877	844,988	355,014	109,644	132,601	1,442,247
1961	722,057	134,882	28,184	63,891	949,014	388,304	116,730	135,842	1,589,890
1962	811,848	144,419	27,600	70,314	1,054,181	406,075	121,491	144,431	1,726,178
1963	909,762	163,049	28,294	73,782	1,174,887	453,395	136,946	161,734	1,926,962
1964	1,015,148	182,064	26,204	76,812	1,300,228	495,657	147,824	178,584	2,122,293
1965	1,144,479	211,605	26,044	79,788	1,461,916	545,056	160,062	211,541	2,378,575
1966	1,319,048	241,793	25,855	82,072	1,668,768	605,200	176,402	231,955	2,682,325
1967	1,523,035	283,875	26,037	83,349	1,916,296	686,187	187,166	265,479	3,055,128
1968	1,789,968	314,334	27,085	87,008	2,218,395	788,088	213,739	297,286	3,517,508
1969	2,024,735	362,397	26,088	88,051	2,501,271	901,435	239,724	318,497	3,960,927
1970	2,302,580	407,635	23,708	92,175	2,826,098	1,028,900	262,120	360,411	4,477,529
1971	2,594,564	437,214	17,439	102,790	3,152,007	1,236,182	298,836	422,494	5,109,519

SOURCE: Expenditure on Personal Health Care In Canada, 1960-1971, Health & Welfare Canada, 1973.

TABLE V
EXPENDITURE ON PERSONAL HEALTH CARE, CANADA, 1960-1971
PERCENTAGE DISTRIBUTION BY CATEGORY

	HOSPITAL SERVICES								
YEAR	GENERAL AND ALLIED SPECIAL	MENTAL	TUBER-CULOSIS	GOVERN-MENT OF CANADA	ALL HOSPITALS	PHYSICIANS' SERVICES	DENTISTS' SERVICES	PRE-SCRIBED DRUGS	TOTAL
1960	44.4	8.4	2.0	3.7	58.6	24.6	7.6	9.2	100.0
1961	45.4	8.5	1.8	4.0	59.7	24.4	7.3	8.5	100.0
1962	47.0	8.4	1.6	4.1	61.1	23.5	7.0	8.4	100.0
1963	47.2	8.5	1.3	3.8	61.0	23.5	7.1	8.4	100.0
1964	47.8	8.6	1.2	3.6	61.3	23.4	7.0	8.4	100.0
1965	48.1	8.9	1.1	3.4	61.5	22.9	6.7	8.9	100.0
1966	49.2	9.0	1.0	3.1	62.2	22.6	6.6	8.6	100.0
1967	49.9	9.3	0.9	2.7	62.7	22.5	6.1	8.7	100.0
1968	50.9	8.9	0.8	2.5	63.1	22.4	6.1	8.5	100.0
1969	51.1	9.1	0.7	2.2	63.1	22.8	6.1	8.0	100.0
1960	51.4	9.1	0.5	2.1	63.1	23.0	5.9	8.0	100.0
1971	50.8	8.6	0.3	2.0	61.7	24.2	5.8	8.3	100.0

SOURCE: Expenditure on Personal Health Care in Canada, 1960-1971, Health & Welfare Canada, 1973

TABLE VI

EXPENDITURE ON PHYSICIANS' SERVICES, CANADA & PROVINCES, 1960-1971,
EXPENDITURE PER PERSON

PROVINCE	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971
Newfound-land	8.89	9.14	9.12	10.29	11.44	12.02	13.02	14.54	18.54	26.22	31.01	33.24
Prince Edward Island	13.16	12.98	12.73	15.21	15.13	16.95	17.88	19.81	22.88	27.43	37.63	40.72
Nova Scotia	15.95	16.67	17.16	17.41	19.18	20.53	22.96	24.06	28.91	34.10	42.40	45.52
New Brunswick	12.42	14.27	14.07	15.63	16.63	17.87	18.53	22.25	24.33	27.18	29.56	36.55
Quebec	15.06	17.04	18.16	20.09	21.04	22.91	25.29	27.65	30.20	33.23	34.46	51.63
Ontario	23.18	24.78	25.42	28.12	30.62	33.17	35.53	40.13	45.58	51.21	49.05	65.87
Manitoba	21.86	24.90	26.36	25.53	26.00	28.68	30.92	33.74	37.02	46.10	55.09	57.11
Saskatch-ewan	19.90	19.77	16.89	26.13	26.92	27.86	30.25	31.60	32.96	36.16	39.52	43.76
Alberta	20.64	21.48	22.93	23.91	24.44	26.64	29.26	35.66	44.83	47.73	54.76	62.02
British Columbia	28.26	28.80	29.11	29.42	32.59	34.02	38.13	40.59	45.45	52.43	48.10	62.14
Yukon & Northwest Territories	10.25	8.47	8.05	7.54	7.48	12.62	10.67	11.73	16.07	19.17	20.94	23.51
Canada	19.82	21.25	21.82	23.91	25.65	27.70	30.19	33.62	38.02	42.87	48.24	57.24

SOURCE: Earnings of Physicians in Canada - 1960-71, Health & Welfare, Canada, 1973.

TABLE VII

EXPENDITURE ON PHYSICIANS' SERVICES, CANADA & PROVINCES, 1961-1971, PERCENTAGE INCREASE OVER PRECEDING YEAR

PROVINCE	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971
Newfoundland	5.2	1.9	14.8	12.8	6.0	9.6	13.0	29.0	43.7	18.9	8.2(April)
Prince Edward Island	0.6	-0.1	20.6	0.4	12.1	5.5	10.8	16.6	21.0	-0.2	50.1(Dec)
Nova Scotia	5.9	4.1	2.1	10.7	7.2	12.0	5.4	21.3	19.3	25.9	7.8(April)
New Brunswick	8.1	-0.4	11.9	6.9	8.0	4.0	20.9	10.2	12.1	8.8	25.0(Jan)
Quebec	15.7	8.8	12.9	6.7	10.9	12.2	10.9	10.4	11.1	4.2	50.2(Nov)
Ontario	9.0	4.4	13.0	11.4	10.9	9.9	15.6	15.7	14.3	17.9	13.8(Oct)
Manitoba	15.8	3.4	2.1	2.9	10.9	7.6	9.2	10.6	25.4	20.0	4.3(April)
Saskatchewan	0.4	-14.1	55.1	4.1	4.4	9.2	4.7	4.6	9.4	7.2	9.2(July)
Alberta	7.2	9.8	2.4	8.5	10.5	10.9	24.2	28.6	8.9	17.3	15.5(July)
British Columbia	3.6	3.0	3.4	13.9	7.6	16.8	10.4	15.2	18.7	14.5	9.7(July)
Yukon & Northwest Territories	-12.7	0.0	-4.0	1.6	68.8	-13.4	12.4	43.2	21.9	16.2	19.0
Canada	9.4	4.6	11.7	9.3	10.0	11.0	13.4	14.9	14.4	14.1	20.1

Note: Year province entered Medicare underlined (month of entry in brackets)

Source: Earnings of Physicians in Canada, 1960-1971, Health & Welfare, Canada, 1973

TABLE VIII

(a) Percentage Changes in Per Capita Costs of Physicians' Services, Canada, by Province, 1966 to 1968 or 1969.
(b) Percentage Changes in Per Capita Medicare Program Costs -- Fee Payments only -- Canada, by Province, 1969-70 or 1970-71 to 1972-73.

	Pre-Medicare (Calendar Years)					Post-Medicare (Fiscal Years)			
	Percentage Change Over Preceding Year				Ave. Rate of	Percentage Change Over Preceding Year			Ave. Rate of
Province	1966	1967	1968	1969	Change	1970-71 '69-70	1971-72 '70-71	1972-73 (a) '71-72	Change
Newfoundland	6.3	11.6	27.4	-	15.5	11.4(b)	6.9	6.0	6.0
Prince Edward Island	5.5	10.8	15.4	20.0	12.8	-	8.4(f)	6.2	7.3
Nova Scotia	12.0	4.7	20.1	-	12.1	8.4(b)	6.3	10.6	8.2
New Brunswick	3.8	19.9	9.3	11.8	11.1	-	5.8(f)	10.2	8.0
Quebec	10.6	9.2	9.2	10.1	9.8	-	7.9(f)	9.7	8.8
Ontario	7.2	12.9	13.5	-	11.2	5.6(b)	7.8(c)	8.9(c)	7.4
Manitoba	7.9	9.0	9.6	-	8.9	5.6(b)	3.3	1.8	3.6
Saskatchewan	8.7	4.4	4.3	-	5.8	14.2	16.6*	9.2(d)	13.3
Alberta	9.9	21.8	25.6	-	18.9	8.1(b)	2.8	2.6	4.5
British Columbia	12.2	6.4	11.9	-	10.1	7.1	4.9	5.6	5.9
1st 7 M.C. Provinces	8.8	11.7	14.3	-	11.5	6.9	6.9	7.4	7.1
All 10 Provinces(e)	9.1	11.3	13.0	-	11.1	-	7.3	8.1	7.7

(a) Preliminary estimates based upon projections from first three quarters of final year.
(b) Annualized estimates based upon known subsequent experience used for 1969-70.
(c) Adjusted to maintain comparability with 1969-70 and previous years by restoring out-patient diagnostic services switched to Hospital Insurance and Diagnostic Services Program after 1969-70.
(d) Adjusted to maintain comparability with previous years by restoring global budget payments switched to non-fee arrangements for 1972-73.
(e) Excludes Yukon and Northwest Territories.
(f) Annualized estimates based upon known subsequent experience used for 1970-7
*Utilization fees removed one-third way through fiscal year.

NOTE: Compare fee schedule increases with increases in per capita medicare program costs.

SOURCE: Medical Care Insurance Directorate, Health & Welfare, Ottawa, 1973.

Unpublished data, not to be reproduced

These marked increases are brought into clearer perspective when compared to increases in personal income in Canada during the same period. The expenditure per capita on physicians' services as calculated from Table VI increased by 187.6% compared to an increase of 106% in personal income per capita during the same period.[1] As can be seen by referring to Table IX, expenditures on physician services in Canada as a percentage of personal income has risen from 1.20 percent in 1960 to 1.68 percent in 1971, an increase of 40 percent. In order to understand this rapid escalation in the costs of physicians' services in recent years, it is necessary to examine the changes in a number of related areas during the period. These related areas include the incomes of physicians, numbers of physicians and changes in prices and utilization of their services over the time space in question.

Physicians' Incomes

Increases in the incomes of physicians have paralleled the increases in per capita costs of their services (Refer to Tables X and XI).

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[1] Canada, Statistical Review, 1972, Ottawa, Queen's Printer.

TABLE IX

EXPENDITURE ON PHYSICIANS' SERVICES, CANADA & PROVINCES, 1960-1971

PERCENTAGE OF PERSONAL INCOME

PROVINCE	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971
Newfoundland	0.97	0.95	0.93	1.00	1.04	0.97	0.95	0.96	1.12	1.46	1.56	1.51
Prince Edward Island	1.40	1.34	1.19	1.42	1.29	1.35	1.29	1.29	1.33	1.49	1.33	1.86
Nova Scotia	1.26	1.30	1.29	1.25	1.31	1.31	1.33	1.27	1.41	1.51	1.75	1.75
New Brunswick	1.19	1.27	1.20	1.27	1.26	1.25	1.17	1.30	1.29	1.31	1.31	1.48
Quebec	1.05	1.15	1.16	1.23	1.21	1.22	1.23	1.23	1.26	1.28	1.24	1.71
Ontario	1.19	1.27	1.23	1.31	1.35	1.36	1.33	1.39	1.45	1.48	1.60	1.66
Manitoba	1.33	1.60	1.47	1.47	1.41	1.46	1.46	1.43	1.43	1.67	1.90	1.78
Saskatchewan	1.35	1.69	1.03	1.45	1.65	1.48	1.41	1.57	1.45	1.52	1.75	1.58
Alberta	1.25	1.30	1.31	1.27	1.32	1.31	1.27	1.45	1.67	1.62	1.76	1.82
British Columbia	1.48	1.52	1.48	1.43	1.49	1.44	1.49	1.48	1.56	1.63	1.73	1.67
Yukon & North-west Territories	0.59	0.55	0.52	0.46	0.45	0.77	0.57	0.57	0.71	0.75	0.80	0.90
Canada	1.20	1.29	1.24	1.30	1.33	1.33	1.32	1.36	1.42	1.46	1.55	1.68

Source: Earnings of Physicians in Canada, 1960-1971, Health and Welfare, Canada, 1973.

TABLE X

AVERAGE NET PROFESSIONAL EARNINGS OF ACTIVE FEE PRACTICE PHYSICIANS WITH NET EARNINGS $15,000 AND OVER, CANADA, BY PROVINCE, 1960 TO 1971

Province	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971(b)
	$	$	$	$	$	$	$	$	$	$	$	$
Nfld.	24,792	24,385	26,078	26,094	27,060	26,699	27,907	29,834	34,436	41,586	44,433	42,400
P.E.I.	17,025	18,985	19,982	19,471	20,652	22,024	23,226	24,133	25,354	27,358	28,922	41,400
N.S.	21,581	21,353	22,053	23,281	24,622	25,096	28,079	27,551	30,835	35,599	38,983	40,100
N.B.	23,224	22,604	23,196	24,813	25,985	26,875	28,383	30,234	32,624	34,235	36,672	43,600
Que.	22,170	23,949	24,053	25,782	26,484	27,488	28,150	29,447	31,300	33,054	33,493	45,400
Ont.	23,717	24,612	25,611	27,126	28,333	29,696	30,788	34,133	37,049	38,809	43,742	44,100
Man.	23,368	23,581	24,284	24,666	24,474	25,950	28,058	29,151	31,655	36,841	42,936	42,100
Sask.	22,901	22,898	22,394	29,067	30,807	29,035	29,690	29,619	30,318	32,620	35,876	37,000
Alta.	22,800	23,234	23,612	23,943	25,532	26,426	27,777	31,223	36,304	36,953	41,608	44,300
B.C.	22,436	22,522	22,988	23,072	24,638	24,694	26,426	28,604	29,503	32,904	34,224	33,700
Yukon & N.W.T.(a)	18,882	20,628	21,300	24,158	24,550	27,691	27,327	25,994	37,031	26,454	31,127	-
Canada	23,014	23,818	24,468	25,726	26,967	27,856	28,985	31,297	33,765	35,951	38,837	42,600

(c)

(a) Data to 1968 for the Yukon & Northwest Territories are posted for record only.
(b) Data to 1971 are preliminary and confidentially provided by Health Economics and Statistics, Department of National Health & Welfare.
(c) Estimated by interpolation

Source: Earnings of Physicians in Canada, 1960-1971, Health and Welfare, Canada, 1973.

TABLE XI

PERCENTAGE CHANGES IN
AVERAGE NET PROFESSIONAL EARNINGS OF ACTIVE FEE PRACTICE PHYSICIANS
WITH NET EARNINGS $15,000 AND OVER, CANADA, BY PROVINCE, 1961-1971

	Annual Percentage Change										Annual Average Rate of Change (1)		
	1961-62	1962-63	1963-64	1964-65	1965-66	1966-67	1967-68	1968-69	1969-70	1970-71	1960-66	1966-71	1960-71
Nfld.	6.84	0.06	1.70	-1.33	4.52	6.01	15.42	20.76	6.85	-4.58	2.0	8.7	5.01
PEI	4.99	-2.31	6.07	6.64	8.46	3.81	5.05	7.90	5.72	43.14	5.3	12.3	8.41
N.S.	7.49	1.43	5.76	1.23	7.90	1.74	11.92	15.45	12.31	0.29	3.9	8.1	5.80
N.B.	3.62	6.97	4.52	3.62	5.61	6.52	7.91	4.94	7.12	18.89	3.4	9.0	5.90
Que.	2.52	5.00	2.72	3.79	2.41	4.61	6.29	5.60	1.33	35.55	4.1	10.0	6.80
Ont.	3.65	6.33	4.45	4.81	3.68	10.86	8.54	4.75	12.71	0.82	3.8	7.5	5.80
Man.	2.98	1.57	-0.37	5.60	8.12	3.90	8.59	16.38	16.54	-1.92	3.1	8.5	5.47
Sask.	2.20	29.80	5.99	-5.75	2.26	-0.24	2.36	7.59	9.98	3.13	4.4	4.5	4.44
Alta.	1.63	1.40	6.64	2.72	5.91	12.41	16.27	1.79	12.60	6.47	3.3	9.8	6.23
B.C.	2.07	0.37	6.79	0.63	.58	8.24	3.14	11.53	4.01	-1.53	2.8	5.0	3.78
Canada	2.80	5.06	4.82	3.30	4.05	7.98	7.89	6.47	8.03	9.69	3.9	8.0	5.75

(1) Compounded annually.

SOURCE: Derived from Earnings of Physicians in Canada, 1960-1971.

Table X shows the average net professional earnings of physicians earning $15,000 and over by province for the years 1960-1971. Table XI gives the annual percentage changes in incomes for the same group as well as the annual average rates of change for the periods 1960-1966, 1966-1971 and 1960-1971. This table also shows the most significant change in incomes occurring during the 1966-1971 period immediately preceding and since the introduction of Medicare.

The rapid fee schedule increases that took place in Canada prior to and immediately following the introduction of Medicare partially explain the increases in net incomes. Reference to Table XII indicates that the largest percentage increases in the overall schedules took place in the years immediately preceding the start of Medicare. Manitoba and Nova Scotia experienced the greatest increases, 33.1 and 22.7 percent respectively.

With the advent of Medicare, it is understandable that these price increases, combined with an increased demand for physician services arising from the removal of financial liabilities on individual consumers to lead to a substantial increase in physician incomes and per capita costs incurred by governments in paying for these services. It should be noted that the contribution made by the increases in fees is greater than the percentage increases indicated. This results from the fact that fee schedules were originally designed with built-in factors to compensate physicians for losses stemming from

TABLE XII

1: Percentage Price Changes of Physicians' Services, as Measured by Changes in Fee or Benefit Schedules, by Province (Excluding Quebec and the Two Northern Territories) and Month, 1964 to 1972.
(Pub. Prog. = Start of Universal, or Virtual Universal, Public Medical Care Program).

Year & Month	Nfld.	P.E.I.	N.S.	N.B.	Ont.	Man.	Sask.	Alta.	B.C.
1962 July							Pub.Prog.		
1964 January		12.1							3.7
March								2.1	
1965 April					7.8				
July								4.0	
1966 April		.5							
July				24.5					
October								5.3	
1967 January									9.9
April					11.3				
July								8.5	
September	16.7					33.1			
October			22.7						
November							5.3 (1)		
1968 January		14.6							
April							Util.Fee	4.9	Pub.Prog.
July							In		
August							17.8 (1)		6.8
1969 January				10.5					
April	Pub.Prog.		Pub.Prog		9.0	Pub.Prog		(2)	
July								Pub.Prog.	
October					Pub.Prog.				

TABLE XII (cont'd.)

Year & Month	Nfld.	P.E.I.	N.S.	N.B.	Ont.	Man.	Sask.	Alta.	B.C.
1970 January		14.1						6.3 (2)	
July							8.0		
August									
December		Pub.Prog.							
1971 January				Pub.Prog.					
April	-1.8 (3)				4.5				
May							Util.Fee		
August							Out		
1972 March			3.0						6.5
April		3.5							
May			5.0				6.8		
August									
September	1.9								
1973 August								4.0	

(1) Effective November 1, 1967 the benefit schedule was adjusted by increasing payments for most visit services to 100 per cent, rather than 85 per cent, of the amounts specified in the fee schedule of the provincial medical association.
In 1968 the fee schedule of the provincial medical association was increased by about 30 per cent, but before this increase was adopted for payment purposes the changes were modified downwards by means of assessment rules made in the form of Regulations under the Saskatchewan Medical Care Insurance Act, and payment for all services reverted back to 85 per cent of the amounts specified in the fee schedule.

(2) The fee schedule of the provincial medical association was increased by 6.3 per cent on July 1, 1969, but this increase was not adopted by the provincial medical care insurance program, introduced on the same date, until one year later, i.e., July, 1970.

TABLE XII (cont'd.)

(3) The negative figure shown reflects the effect of limits on physicians' earnings introduced in early 1971. Payment rates under the provincial program decreased as payments to individual physicians began to exceed the monthly limits specified for various broad specialty groups.

SOURCE: Department of Health & Welfare, "Price Changes, Physicians Services," April 18, 1973.

bad debts. The elimination of unpaid accounts after inception of government operated-plans virtually guaranteed that the effective prices would increase (normal prices remaining constant). There does not appear to be a direct correlation between the overall level of a fee schedule and average net earnings of physicians. This is due to a number of factors, the chief of which are the available physician supply (doctor-population ratio) and, of course, the rate at which they provide services, i.e., how busy they are. In addition, rapid increases in overall costs of physician services has not been paralleled by an increase in physician incomes. The prominent public belief in physician "shortages" might lead one to accept increased prices - increased demand as the cause for these cost escalations. The assumptions of

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[1] R. A. Armstrong, Director General, Health Insurance, Health and Welfare, Ottawa, in his report to the Hastings Commission; "Some Observations on Methods of Physician Remuneration in Canada", writes: "The highest average earnings among practising physicians for 1969 and 1970 occurred in Newfoundland which happens to be the province using the lowest fee schedule in the country. This is due to certain considerations including the lowest doctor-population ratio in the country . . . On the other hand, in British Columbia, where the fee schedule has been among the highest in the country for the past 10 years, the average earnings for physicians have tended to run rather below the national average due almost entirely to the fact that with so many doctors in relation to the population, the average workload of each was rather below the average of most provinces." p.23.

physician manpower shortages must be questioned[1] in the light of the complex nature of the supply and demand characteristics for physician's services in medical markets. This will be investigated further in the next section of this chapter which deals with physician manpower supply and current utilization trends in Canada.

Recent Physician Manpower Supply and Utilization Trends in Canada

While disparities in physician supply between provinces remain[2] and there is also uneven geographical distribution of physicians within provinces and by type of practice,[3] there has been an unexpected over-all

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[1] R.G. Evans, E.M.A. Parrish, F. Scully, op. cit., p.393. They wrote: "Physicians may have the power to generate demand for their own services; an examination of inter-regional output and physician density patterns appeared to confirm this view. Under such circumstances, the concept of a "physician shortage" becomes meaningless and observation of rapid cost escalation and increase in volume of procedures may indicate a concealed physician surplus".

[2] As can be seen from Table XII, Prince Edward Island and New Brunswick have only one-half as favourable a physician population ratio as Ontario and British Columbia.

[3] Canada, Health Manpower Inventory, 1972, Ottawa, Queen's Printer, 1972. pp.62-65. There has been a relative decline in the percentage of general practitioners, internists and obstetrician-gynecologists over the past decade.

increase in physician supply during the past decade.

This increase in supply has taken place because of a number of factors. Among these factors has been decreasing emigration and continuing high immigration in recent years. Tables XIII and XIV portray Canadian physician emigration and immigration from 1964 and 1965 to 1970 respectively. As can be seen from these tables, immigration is increasing yearly while emigration which was approximately 500 per annum in 1964 has decreased to slightly over 300 per annun in 1970.

Another factor accounting for the increase in supply of physicians in Canada has been an increasing output from Canadian medical schools. The Association of Universities and Colleges of Canada has recently published a report on Health Manpower output of Canadian Educational Institutions. In the case of medicine, the annual number of graduates has increased from 881 in 1966 to 1328 in 1973.[1] If present firm plans for expansion are implemented, projected figures indicate that output will level off at about 1740 in 1976.[2]

As a result of the factors we have just discussed, doctor populations have now reached the target which the Royal Commission on Health

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[1] H.R. Robertson, J.F. Houwing, L.F. Michaud, Health Manpower Output of Canadian Educational Institutions, Association of Universities and Colleges of Canada, Ottawa, 1973, p.65.

[2] Ibid., p.70.

TABLE XIII

ESTIMATED NUMBER OF PHYSICIANS EMIGRATING FROM CANADA 1964 to 1970, WITH ESTIMATED BREAKDOWN BY TYPE OF PHYSICIAN (GENERAL PRACTITIONER OR SPECIALIST)

Type of Physician	Estimated Number of Emigrant Physicians						
	1964	1965	1966	1967	1968	1969	1970
General Practitioner	297	265	282	316	243	195	188
Specialist	207	184	196	220	169	135	131
Total	504	449	478	536	412	330	319

NOTE: Breakdown based on the approximate percentage of foreigh medical graduates residing in Canada who were specialists in each of the above years.

SOURCE: Health Care Insurance Directorate, Health & Welfare, Ottawa, 1973 (Unpublished Paper).

TABLE XIV
NUMBER OF IMMIGRANT PHYSICIANS ENTERING CANADA,
1965 TO 1970 WITH ESTIMATED BREAKDOWN BY TYPE OF PHYSICIAN
(GENERAL PRACTITIONER OR SPECIALIST)

Type of Physician	Number of Immigrant Physicians					
	1965	1966	1967	1968	1969	1970
G.P.'s	467	587	716	753	794	627
Specialists	325	408	497	524	553	486
Total	792	995	1,213	1,277	1,347	1,113

NOTE: Breakdown based on the approximate percentage of foreign medical graduates residing in Canada who were specialists in each of the above years. This was about 41 per cent in the years 1965-66 to 1969-70 and 43.7 per cent in 1970-71.

SOURCE: Health Care Insurance Directorate, Health & Welfare, Ottawa, 1973 (Unpublished Paper).

Services in 1964 despaired of reaching before 1991![1]

The actual numbers of active[2] civilian physicians and percent increase by province by year between 1968 and 1972 are given in Table XV. These increases are compared to provincial population changes during the same period in Table XVI and Table XVII shows the ratios of active physicians to population for the years 1968 to 1973 by province.

Utilization

The Federal Health Insurance Directorate, which has been doing comparative utilization studies since the introduction of Medicare, report that of the six provinces with universal medical coverage in effect for

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[1] Royal Commission on Health Services, Vol. 1, op. cit., p.524. The Royal Commission projections of the total number of Canadian physicians by year were as follows: (The actual number of civilian physicians as per CMD tapes is shown in brackets). 1971-26,486 (34,771)
1981-30,702
1991-33,417

[2] "Active" here refers to all employed physicians whether in private practice or salaried positions.

TABLE XV
ACTIVE CIVILIAN PHYSICIANS
CMD TAPES
1968-1972

Province	1968	1969	% Change over Prev.Yr.	1970	% Change over Prev.Yr.	1971	% Change over Prev.Yr.	1972	% Change over Prev.Yr.	% Change 1968-72
Nfld.	345	428	24.05	466	8.87	479	2.79	536	11.90	55.36
P.E.I.	91	94	3.30	97	3.19	98	1.03	100	2.04	9.90
N.S.	920	971	5.54	1,032	6.28	1,081	4.25	1,141	5.55	24.02
N.B.	571	578	1.22	568	-1.73	609	7.22	623	2.30	9.11
Quebec	7,743	8,500	9.77	8,831	3.89	9,138	3.47	9,661	5.72	24.77
Ontario	9,865	11,201	13.54	11,851	5.80	12,506	5.52	13,543	8.29	37.28
Manitoba	1,314	1,353	2.96	1,401	3.54	1,533	9.42	1,614	5.23	22.83
Saskatchewan	1,068	1,129	5.71	1,152	2.03	1,128	-2.08	1,149	1.86	7.58
Alberta	1,981	2,129	7.47	2,256	5.96	2,384	5.67	2,536	6.37	28.01
British Columbia	2,982	3,242	8.71	3,471	7.06	3,624	4.40	3,868	6.73	29.71

SOURCE: Active Civilian Physicians, CMD Tapes, 1968-72

TABLE XVI
ACTIVE CIVILIAN PHYSICIANS
CMD TAPES
1968-72
WITH COMPARISON OF PROVINCIAL POPULATIONS

Province		1968	1972	% Change
Newfoundland	Phys	345	536	55.36
	Pop	506,000	532,000	5.14
Prince Edward Island	Phys	91	100	9.90
	Pop	110,000	113,000	2.73
Nova Scotia	Phys	920	1,141	24.02
	Pop	767,000	794,000	3.52
New Brunswick	Phys	571	623	9.11
	Pop	625,000	642,000	2.72
Quebec	Phys	7,743	9,661	24.77
	Pop	5,928,000	6,059,000	2.20
Ontario	Phys	9,865	11,201	37.28
	Pop	7,262,000	7,825,000	7.75
Manitoba	Phys	1,314	1,614	22.83
	Pop	971,000	992,000	2.16
Saskatchewan	Phys	1,068	1,149	7.58
	Pop	960,000	916,000	-4.58
Alberta	Phys	1,981	2,536	28.01
	Pop	1,524,000	1,655,000	8.60
British Columbia	Phys	2,982	3,868	29.71
	Pop	2,003,000	2,247,000	12.8

SOURCE: Phys-Active Civilian Physicians - CMD Tapes
Pop-Research Section, Census Division - Statistics Canada, August, 1972.

TABLE XVII
RATIO OF ACTIVE PHYSICIANS TO POPULATION 1968-72

Province	1968		1969		1970		1971		1972	
Newfoundland	1:1467	10	1:1201	10	1:1109	9	1:1090	9	1: 992	8
Prince Edward Island	1:1209	9	1:1181	9	1:1134	10	1:1143	10	1:1130	10
Nova Scotia	1: 834	6	1: 798	6	1: 758	6	1: 730	6	1: 696	6
New Brunswick	1:1095	8	1:1087	8	1:1104	8	1:1043	8	1:1030	9
Quebec	1: 766	4	1: 704	3	1: 681	3	1: 660	3	1: 627	4
Ontario	1: 736	2	1: 659	2	1: 637	2	1: 616	2	1: 578	1
Manitoba	1: 739	3	1: 724	4	1: 702	4	1: 644	4	1: 614	3
Saskatchewan	1: 899	7	1: 849	7	1: 817	7	1: 821	7	1: 797	7
Alberta	1: 769	5	1: 732	5	1: 707	5	1: 683	5	1: 652	5
British Columbia	1: 673	1	1: 625	1	1: 613	1	1: 603	1	1: 581	2

SOURCE: Population Data - Census Division, Statistics Canada, August, 1973
Physician Data - CMD Tapes - Active Civilian Physicians 1968-1976

the longest time, between fiscal years 1970-71 and 1971-72, four showed a decrease in the number of services rendered per general practitioner and four a decrease in the number rendered per specialist. This information is outlined in Table XVIII. As can be seem from the table, there has been an increase in the number of services per 1,000 beneficiaries. This means in other words that there are fewer services being performed per doctor, but a lot more doctors are performing them.

Table XIX sets out experience in Alberta for the years ending June 30, 1970 to 1972 and preliminary figures for 1973. As can be seen from the table, the experience in Alberta has been similar; the number of services and total medical payments per 1,000 insured residents has increased yearly from 1970, while the average number of services and average payment per practitioner have declined somewhat over the past two years.[1]

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[1] It is to be noted here that a fee schedule increase was granted in Alberta in mid-1973. (See Table VII).

TABLE XVIII

PERCENTAGE CHANGES IN UTILIZATION (EXCLUDING LABORATORY AND RADIOLOGY SERVICES) OF PHYSICIAN SERVICES, 6 PROVINCES, 1970 OR 1970-71 TO 1971 OR 1971-72

6 Provinces	Percentage Changes		
	G.P.	Specialist	Total
Number of Services per 1000 beneficiaries	3.7	1.4	3.0
Number of Services per active physician	-1.3	-3.7	-2.0

SOURCE: Health Insurance Directorate, Health & Welfare, Ottawa, September, 1973. From data submitted by the Medical Care Insurance Commissions of three provinces.

Unpublished Data, not for Reproduction

TABLE XIX

MEDICAL BENEFITS SELECTED INDICATORS FOR THE YEAR ENDED JUNE 30
ALBERTA HEALTH CARE INSURANCE COMMISSION

	1970	1971	1972	1973*	1971/1970 % Change	1972/1971 % Change	1973/1972 % Change
Number of Insured Residents	1,637,677	1,677,209	1,715,816	1,760,388	12.41%	2.30%	2.60%
Number of Medical Practitioners	1,705	1,912	2,113	2,209	12.14%	10.51%	4.54%
Total Medical Payments	$66,688,677	$91,848,055	$95,211,074	$99,225,813	37.73%	3.66%	4.22%
Total Medical Services	8,340,103	10,646,886	11,089,802	11,573,078	27.56%	4.66%	4.30%
Average Payment Per Practitioner	$ 89,114	$ 48,038	$ 45,060	$ 44,919	22.82%	-6.20%	-0.31%
Average Number of Services Per Practitioner	4,892	5,568	5,248	5,239	13.82%	-5.73%	-0.17%
Total Medical Payments Per 1000 Residents	$ 40,721	$ 54,762	$ 55,490	$ 56,366	34.48%	1.33%	1.58%
Total Number of Services Per 1000 Residents	5,093	6,348	6,463	6,574	24.64%	1.81%	1.72%

*Preliminary and subject to reconciliation.

Prepared by: Research & Statistics, Alberta Health Care Insurance Commission

1973 Unpublished data, not for reproduction.

INFERENCES

One especially noteworthy observation resulting from a study of these tables is that despite a rapid increase in physician supply relative to the population, the average net professional earnings have continued to increase through 1971 except in three provinces, Newfoundland, Manitoba and British Columbia, where there was net average income decreases of 4.58, 1.95 and 1.53 per cent respectively between 1969 and 1971 (See Table XII). However, the expenditures on physicians' services increased by 8.2, 4.3 and 9.7 per cent respectively in these provinces during the same period, while the provincial populations increased by 9, 4.0 and 2.6 per cent respectively (See Table XX). The physician population ratio and percentage change for the years 1969 to 1972 is shown in Table XXI. It can be seen that there has been a steady improvement in ratios in all provinces over the period with the most marked improvement occurring in Newfoundland. These figures explain why total cost of physician services escalated in these provinces while average net income decreased slightly.

That incomes have increased in seven provinces, despite increases in the physician-population ratio points out one of the advantages of the fee-for-service system from the point of view of the physician. That is, its ability to provide means of coping with substantial alterations in

TABLE XX

PROVINCIAL POPULATION 1961-1972

	Population (000)												% Change	
	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	60-72	68-72
Nfld.	458	468	476	483	488	493	499	506	514	517	522	532	16.15	5.14
PEI	105	107	108	109	109	109	109	110	111	110	112	113	9.71	2.73
NS	237	246	751	755	756	756	760	767	775	782	789	794	9.22	3.52
NB	598	605	609	611	615	617	620	625	628	627	635	642	9.00	2.72
Que.	5,259	5,371	5,481	5,584	5,685	5,781	5,864	5,928	5,985	6,013	6,028	6,059	17.83	2.20
Ont.	6,236	6,351	6,481	6,631	6,788	6,961	7,127	7,262	7,385	7,551	7,703	7,825	28.05	7.75
Man.	922	936	949	959	965	963	963	971	979	983	988	992	9.49	2.16
Sask.	925	930	933	942	950	955	957	960	958	941	926	916	.11	-4.58
Alta.	1,332	1,369	1,403	1,429	1,450	1,463	1,490	1,524	1,559	1,595	1,628	1,655	28.19	8.60
BC	1,629	1,660	1,699	1,745	1,797	1,874	1,945	2,003	2,060	2,128	2,185	2,247	40.26	12.18

SOURCE: Population data - Research Section, Census Division, Statistics Canada, August, 1972

TABLE XXI

ACTIVE CIVILIAN PHYSICIANS (1) PER 1,000 POPULATION, AND PERCENTAGE CHANGES, CANADA, BY PROVINCE, JANUARY 1969 TO JANUARY 1972

All Physicians

Province	1969		1970		1971		1972
NFLD. - Rate	.646		.767		.769		.847
% of Change		18.7		.3		10.1	
PEI - Rate	.820		.855		.856		.875
% of Change		4.3		.1		2.2	
N.S. - Rate	1.035		1.059		1.113		1.193
% of Change		2.3		5.1		7.2	
N.B. - Rate	.797		.819		.810		.869
% of Change		2.8		-1.1		7.3	
QUE. - Rate	1.035		1.084		1.134		1.208
% of Change		4.7		4.6		6.5	
ONT. - Rate	1.183		1.245		1.280		1.347
% of Change		5.2		2.8		5.2	
MAN. - Rate	1.085		1.105		1.152		1.258
% of Change		1.8		4.3		9.2	
SASK. - Rate	.989		1.019		1.074		1.084
% of Change		3.0		5.4		.9	
ALTA. - Rate	1.075		1.139		1.177		1.247
% of Change		6.0		3.3		5.9	
B.C. - Rate	1.323		1.374		1.424		1.475
% of Change		3.9		3.6		3.6	
Y.T. - Rate	.875		.941		1.111		.895
% of Change		7.5		18.1		-19.4	
NWT. - Rate	.484		.563		.618		.778
% of Change		16.3		9.8		25.9	
CAN. - Rate	1.099		1.153		1.195		1.263
% of Change		4.9		3.6		5.7	

(1) Excludes Interns and Residents

SOURCE: CMD tapes for January of each year.

physician-population ratios. One mechanism which we have examined which helps provide this flexibility is the fee schedule which provides a means of protecting income as over-supply of medical manpower begins to occur. This is accomplished by means of general upward alterations of the fee schedule at periodic intervals. We have also seen that there is a strong evidence that the fee-for-service system results in a degree of demand generation for physician services through encouraging activity and penalizing inactivity. The cost implications of increasing the supply of available manpower are obvious.[1]

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[1] Over-supply as referred to here does not occur in purely competitive markets because the price mechanism would act to correct it. In the situation of a medical monopoly (such as existed in Canada prior to Medicare) an over-supply would exist, from the profession's point of view, when an influx of practitioners led to a decrease in average net incomes in each of the medical specialties, given a fixed fee schedule. An over-supply in such a situation could conceivably force prices down (inelasticity nonwithstanding) since there was reticence to allow prices to rise as we have noted in Chapter II. Under Medicare, where the government must accept the responsibility of determining the optimal supply of medical manpower, the question becomes one of determining whether marginal benefits are equal to, or less than, marginal costs. An over-supply would then exist where increases in government costs are not matched by improvements in the provision of health care. The recent unpublished report of the Task Force on Physician Manpower prepared for the Ontario Council of Health in 1973, makes an interesting statement concerning physician manpower supply. The report states: "It appears that as the doctor-population ratio increases, the volume of services rendered increases, as does the cost of health services. In comparing Ontario to other societies with higher ratios, it appears there are no perceivable health benefits to the society where the ratios are higher than the suggested range.", p.8.

It is now apparent that predictions made by skeptical opponents of Medicare who forecast that public demand for medical care would be far in excess of the ability of available manpower to supply it were Medicare instituted were wrong.[1] Not only has this problem not arisen, utilization studies show that after the first year or two of Medicare when care for the uninsured or inadequately insured public was being met, physician supply has increased in most provinces faster than the demand for their services, so that the average workload (average number of services) per doctor has reached a plateau or is declining.[2]

We now have in Canada under Medicare, therefore, a situation where there appears to be a levelling off of the increase in physicians' incomes but the total costs of physicians' services continue to escalate because of increased per capita utilization of these services. This increased utilization is resulting from a rapidly increasing physician supply with apparent secondary demand effects which

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[1] Royal Commission on Health Services, op. cit., p.524

[2] Armstrong and Stewart, op. cit., p.8. They write: "Thus, the old Shiboleth, 'zero price, infinite demand' is highly suspect; rather, it seems that, in practice, there is an upper limit to the number of medical services which the public will seek at any given point in time and with a given level of technology at least after the transition period following the introduction of universal coverage with free access to care".

are partly physician generated. This increase in the volume of procedures due to these factors may be concealing what is, in fact, a physician surplus. In its Report to the Ontario Council of Health, the Task Force on Manpower recommended that there was a need to control the number of physicians entering practice in Ontario because it believed that "the ever-increasing numbers of physicians being licensed to practice in the province, and the economics of the government's medical care systems are on a collision course".[1] It seems a reasonable conclusion to make in the light of recent developments.

This completes this chapter on trends in medical markets in Canada. The concluding chapter which follows will attempt to summarize the main points and draw conclusions based on the information which has been examined in the thesis.

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[1] Ontario Council of Health Task Force Report, unpublished, op. cit., p.1. As noted previously, however, we must distinguish here between the concept of over-supply as seen from the points of view of the profession and government. The government must ensure optimality from the point of view of society, not the medical profession.

CHAPTER VI

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Summary

The development of health insurance and the fee-for-service method of physician remuneration has been outlined. The rationale underlying the fee-for-service system as well as its advantages and disadvantages in the context of Medicare were covered. The main principles of federal medical care insurance have been presented as well as details of provincial participation and existing as well as proposed new methods of financing. The main organizational, administrative and fiscal features of the provincial medical care plans have been provided.

Contrasts between medical service market and conventional markets were presented as well as a general description of the supply and demand characteristics of the former. Finally, trends in medical service markets in Canada in recent years as they apply to expenditures on physicians' services, physicians' incomes and the supply of medical manpower were outlined. These trends were analyzed from the point of view of their inter-relationships and their implications for the total costs of health care. In the final section of this chapter, an attempt will be made to draw conclusions from the material which has been presented and suggestions made as to possibilities for effecting desirable changes within the framework of the present system of physician payment.

Conclusions

All methods of physician remuneration possess undesirable features, but the fee-for-service method has some particularly undesirable features in the context of universal health insurance. These features relate chiefly to its influence to encourage physician activity since income is related directly to the volume of work performed, and also to its influence patterns of health care delivery by encouraging certain activities and discouraging others.

Utilization studies which are being carried out by the federal Health Care Insurance Directorate in Canada, indicate that the supply of physicians has increased much more quickly than the demand for their services in recent years, with the result that the average workload is declining. The evidence suggests that we are now in a situation of physician over-supply (marginal benefits not equal to marginal costs) which is concealed somewhat because physicians are able to compensate by generating demand for a portion of their services. Therefore, the public belief that a physician shortage exists may simply exemplify a case of hidden employment. Neither increased medical school outputs nor increased immigration will alleviate such "shortages" in a situation where supply is creating a portion of its own demand.

We have examined the history of the fee-for-service method of payment in the Canadian setting. We have seen that the fee schedules which were adopted by provincial medical care plans had been developed under the

service plans and included built in weighting because of the expectation that certain services would be rendered for which no payment would be made. Not only were there marked increases in fee schedules in the years just prior to and following the inception of Medicare, but these earlier weightings were not removed. These facts, combined with the increased demand for services for the first one or two years after Medicare began operation resulted in a rapid escalation of physicians' incomes.

In the past few years, in the face of rapidly increasing physician populations and consequently a leveling of incomes, the medical profession has been forced to continuously raise prices in order to maintain incomes while the individual practitioner has to try to generate more services as natural demand is diluted by the increasing physician supply. The result has been a decreasing average number of services per physician and an increasing number of services per 1,000 population.

The cost implications of such a situation are obvious. The total costs of services will, of necessity, increase in direct proportion to the number of physicians under the present system of physician remuneration. It is therefore apparent that economic prescriptions are in order if the current inflationary health care cost spiral is to be slowed.

In order to achieve the objective of moderating the current rates of

increase in Canadian medical care expenditures, three basic "policy stances" have been suggested:[1] 1) Extended self regulation by medical suppliers as recommended by the Task Force on the price of Medical Care,[2] 2) Incentives and controls on the consumer involving deterrent charges, co-insurance, deductibles or some combination of all three, 3) Direct regulation of physicians. As Evans points out,[3] the first two policy options will likely be rather unfruitful in achieving our objectives. He further points out that since the level of medical expenditure in Canada is currently determined by the number of physicians and by their earnings, in order to achieve our objective we must moderate either the growth in the number of physicians, or their average income, or both.[4]

The natural course of action for the medical profession would be to begin to attempt to decrease the number of physicians being licensed in Canada. One of the obvious ways to achieve this is to restrict licensure for immigrant physicians and, as is the case in Alberta, require a second year of internship for

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[1] See R.G. Evans, op. cit., pp. 115-124 for an in-depth review of the implications of each of these "policy stances".

[2] Task Force Reports on the Cost of Health Services, Vol. III, op. cit., pp. 170-182.

[3] R. G. Evans, op. cit., p.120.

[4] Ibid., p.124.

licensure for both Canadian (including Alberta) and foreign graduates, ostensibly for reasons of improving the standards of care. From the point of view of governments who are being trapped into escalating costs by granting increases in a leap-frog fashion across the country, their only alternatives (both highly undesirable politically) would be to refuse to grant the increases, and also to refuse to allow enaction of legislation which permits restriction of licensure.

While such actions by governments would seem at this point to be remote, it is obvious at this time that legislators are going to have to devise some interim solutions. This is necessary because we know that unless changes are made in the way health services are financed and the providers of care are paid, the problems of ever increasing cost escalations will continue to worsen. The present financing system and payment methods are not only affecting incomes of physicians, they are also affecting the form and function of our health care system and the way our medical care institutions are being utilized.

It seems apparent at this time that the federal government will implement changes in the present method of health care financing. The present open-ended method of cost reimbursement under which the federal government reimburses provinces under the Hospital Insurance and Diagnostic Services Act and the Medical Care Act for amounts that have been "allowably" spent is about to change. The primary purpose behind this move is to assist in the de-escalation of health costs while allowing the provinces greater flexibility

in introducing more economic systems of health care.

It appears that these changes are inevitable. What happens to the province that finds itself forced into a situation of closed-end funding for health care? Can most provinces in Canada continue the present system with the inherent problems we have outlined? Can they continue to allocate resources in such a way that the providers of care who generate the most services receive the most money? What are the budget implications for this? Surely, pro-rationing of fees would become inevitable and inequities in the distribution of services would probably occur. The only alternate in this situation would be to devise a new system of budgeting and allocating funds.

To speculate on the form such a new system would take is certainly far beyond the scope or purpose of this thesis and, at any rate, it is highly unlikely politically that such a radical change will take place in the near future. We are, however, faced with a change in funding at the federal level. The question that arises is, what can be done within the existing framework of physician remuneration which will provide incentives to lower costs while maintaining acceptable standards of health care.

One possible answer may be in a manipulation of fee schedules in such a way that incentives for cost-control could be incorporated. Examples would be changes in prices which discourage the utilization of hospital facilities, both on an in-patient and out-patient basis. Such changes in schedules will require joint profession-government consultation and study of existing patterns of utilization in each province. One distinct advantage which

the fee-for-service system offers under Medicare is that there is a record of every visit and procedure performed; this information is a necessary prerequisite to analysis of utilization trends and patterns.

Whatever solutions are worked out, a greater awareness of current trends in medical care markets is required by governments. Governments now find themselves in a changing role as regards the provision of health care; they are the paying agency which must bargain at arms length across tables with the medical profession's "union". It might be time for a reappraisal of the traditional (Saskatchewan in 1962 excepted) approach and attitude of government in its dealings with the medical profession as described by Glaser:[1]

> "After prolonged periods of financial imbalance or inequities in the provision of medical care, governments may impose new systems of payment. These changes are never sudden and are as much evolutionary as authoritarian. Usually the new system is a compromise and necessitated by price ceilings and orderly budgets. Usually elaborate concessions are made to the profession's demands for autonomy, resources and incentives sufficient for future recruitment."

In this thesis, the question of alternate methods of physician payment have not been considered. It is possible that the fee-for-service system which has been the traditional method of payment in Canada is

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[1] William A. Glaser, op. cit., p.137.

unsuitable under conditions of universal health insurance and an alternative method or a combination of methods would be more suitable. In condisering possible solutions to the problems facing us, we must not forget that the primary concern of the practicing physician is the well being of his patient and that, in the final analysis, the method of payment is of secondary consideration provided certain criteria are met. These criteria are ones which would be sought by any professional. As Hastings,[1] writing in Social Policy in the Sixties expressed it:

> "Experience has shown that professional people will provide a satisfactory standard of service under any method of payment, provided that the total payment is sufficient and the working conditions are conducive to independence of professional judgement and a sense of personal satisfaction in the job being done."

Recommendations

It is recommended that:

1. Targets with respect to health care personnel and facilities be tied to key monitors or measures of health status in society. This will involve the development of methods to measure inputs and outputs in the medical care industry

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[1] John E.F. Hastings, "Issues and Priorities in Medical Care", in Social Policy in the Sixties, Ottawa, Canadian Welfare Council, 1961, p.24.

and their relations to changes in the health status of the population. This must be done before the concepts of optimal, under or over-supply of physician manpower will have any real meaning. Only when such determinations are made will informed resource allocation in the medical care sector be possible.

2. Research into the economic rationale underlying medical fee schedules as they currently exist in Canada be undertaken.

3. The vast quantities of data now available to provincial commissions in Canada pertaining to medical services be made available for public analysis and scrutiny (subject to the confidentiality requirements of patients). Such scrutiny and analysis will make possible better monitoring of the effectiveness of medical care programs which consume such vast sums of public monies in Canada.

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Appendix I

Physician Payment Under Provincial Health Care Insurance Plans

British Columbia

Payment is made at 90 per cent of the current fee schedule. Physicians either bill patients for services rendered or accept payments directly from a licensed carrier. In the former case the physician has to notify the patient in writing before rendering a service that he is a non-participating physician, and the patient has to agree in writing that he is prepared to pay more than the amount of reimbursement that he may receive from the public authority. In the latter case, provided the patient has been duly notified, he agrees in writing to the extra charge, and the amount of the extra charge is made known to the commission.

Alberta

Since July 1, 1970, payments to physicians have been made at 100 per cent of the 1969 fee schedule.

Saskatchewan

Physicians may elect to receive payment in three ways. First, the physician may receive directly from the public authority payment of 85 per cent of the tariff in the 1968 fee schedule of the Medical Association, and

accept this payment as payment in full. Secondly, patients and physicians may enroll voluntarily with an "approved health agency" that serves as intermediary with respect to payment between the public authority and the physicians; here also the physician receives 85 per cent of the tariff. Thirdly, a physician may elect to submit his bill directly to the patient who pays him either before or after seeking reimbursement from the public authority; the physician may bill the patient directly for amounts over and above what the public authority has paid. No physician is compelled to confine himself to one or another of these modes of payment.

Manitoba

Physicians may elect to participate in the plan and to accept all payments from the public authority, or they may elect to receive payments direct from all their patients. In the former case, the amount received (85 per cent of the fee schedule) must be accepted as payment in full. A non-participating physician must give a patient "reasonable notice" if he intends to extra-bill.

Ontario

Payments are made at 90 per cent of the current fee schedule. Physicians may choose various modes of payments but are not required to enter into a formal commitment to confine themselves to any given mode. Regardless

of the mode of payment selected, a physician is required to advise the patient of any intention to charge more than is provided under the plan. These arrangements were under legislative review late in 1971, with the intention of requiring physicians to confine their billing to one of the alternative modes.

Quebec

Doctors who participate receive their entire remuneration, directly or indirectly, from the provincial agency - the Quebec Health Insurance Board - in accordance with a negotiated schedule of benefits payments for each service provided, and they cannot extra-bill. They may choose to be paid directly by the Board, or indirectly by the patient, who is reimbursed by the Board. Doctors who choose not to participate must collect all fees (except for emergency care) from the patient, who cannot, as in other provinces, seek reimbursement from the provincial agency but must personally pay the entire amount.

New Brunswick

Doctors must indicate whether or not they intend to participate in the plan; if they participate they are obliged to accept 87 per cent of the current fee schedule amounts as payment in full (except for inclusive obstetrical services provided by a specialist, for which he can bill the patient an extra $43.50). Doctors who elect to deal directly with particular patients with

regard to payment may extra-bill, and in so doing are not limited to 13 per cent of the fee in the schedule, provided the patient is informed beforehand.

Nova Scotia

Benefit payments by the plan are made at 85 per cent of the current fee schedule. Physicians must elect either to participate, that is, accept all payments directly from the plan, or not to participate. In either case, physicians may extra-bill but they must obtain written consent from the patient prior to rendering the service, and the amount of the extra charge has to be made known to the commission.

Prince Edward Island

Doctors who elect to collect directly from patients can extra-bill but only up to the amount for the service as listed in the medical association fee-schedule, and only after they have told the patient their intention, obtained the patient's written consent, and notified the provincial agency of the amount. Doctors who elect, alternatively to bill the provincial agency directly are paid 85 per cent of the fee-schedule amount. This they must accept as payment in full unless, again, they notify the patient of their intention to extra-bill for the additional 15 per cent and obtain his written consent.

Newfoundland

Benefit payments are limited to 90 per cent of the fee schedule. Physicians must formally select, and use exclusively, one of the modes of payment available. A participating physician must accept 90 per cent of the fee-schedule amounts as payment in full. A non-participating physician may impose additional charges provided he informs the beneficiary that he is not a participating physician and that he reserves the right to charge in excess of the amount payable by the plan. Traditionally, large numbers of doctors in Newfoundland contracted with the provincial government and with certain voluntary agencies to receive salaries for services in outlying areas; these arrangements are still in force.

Source: Canada Yearbook 1972, Queen's Printer, Ottawa, pp. 207-11.